

**Updating the Low  
Income Housing  
Tax Credit  
(LIHTC) Database:  
Projects Placed in  
Service Through  
1999**

**Contract  
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# Executive Summary

This report presents the results of the most recent update to the database of LIHTC properties. An earlier effort, also performed by Abt Associates Inc., created a national database of LIHTC properties placed into service from 1987 through 1994. Then in December 2000, HUD published the results of the first update to this database, *Updating the Low Income Housing Tax Credit (LIHTC) Database*, which included properties placed in service from 1995 through 1998. This report publishes the results of the second update to the database, which includes properties placed in service through 1999 and provides more complete coverage of properties placed in service in 1998.

As with the earlier data collection efforts, this study relied on state tax credit allocating agencies to provide information about each of the properties in their jurisdictions. Based on the data received from agencies, tax credit production averaged roughly 1,300 projects and 86,000 units annually between 1995 and 1999. While the number of projects placed into service each year has remained fairly stable over the years, the number of units has grown steadily from roughly 56,000 units produced annually in the 1992 through 1994 period to over 100,000 units in 1999. This increase reflects a boost in the size of the average LIHTC project from 42 units in the earlier study period to 73 units for properties placed in service in 1999. The larger average project size is in turn a function of the increase in the number of tax credit projects with tax-exempt bonds, which are more than twice as large as the average LIHTC project. Overall, tax credit projects are larger and have larger units than apartments in general.

Nearly two-thirds of LIHTC projects placed into service from 1995 through 1999 were newly constructed (although less than one-third in the Northeast were new construction). Roughly one-third of the projects had a nonprofit sponsor, with a significant increase in nonprofit sponsorship over the years. At the same time, the number of LIHTC projects with Rural Housing Service Section 515 loans has declined. The South accounts for the largest share of tax credit units in the United States, and the South and West boast larger-than-average LIHTC properties. The South also claims the largest proportion of properties with Rural Housing Service Section 515 loans. The Northeast has the highest proportion of nonprofit-sponsored LIHTC projects.

About half of LIHTC units placed into service from 1995 to 1999 are located in central cities, and two-fifths are in metro area suburbs, similar to the distribution of occupied rental housing units overall. Over time, the shares of LIHTC projects in central cities have dropped while the proportion in suburban locations has increased. Compared to rental housing in general, tax credit projects are disproportionately located in Difficult Development Areas (areas with high development costs relative to incomes, qualifying the project to claim an increased basis) and areas with relatively low development costs.

# Chapter One

## Introduction

### 1.1 Overview of the LIHTC

The Low Income Housing Tax Credit (LIHTC) was created by the Tax Reform Act of 1986.<sup>1</sup> The act eliminated a variety of tax provisions which had favored rental housing and replaced them with a program of credits for the production of rental housing targeted to lower income households. Under the LIHTC program, the states were authorized to issue Federal tax credits for the acquisition, rehabilitation, or new construction of affordable rental housing. The credits can be used by property owners to offset taxes on other income, and are generally sold to outside investors to raise initial development funds for a project. To qualify for credits a project must have a specific proportion of its units set aside for lower income households and the rents on these units are limited to 30 percent of qualifying income.<sup>2</sup> The amount of the credit that can be provided for a project is a function of development cost (excluding land), the proportion of units that is set aside, and the credit rate (which varies based on development method and whether other federal subsidies are used). Credits are provided for a period of 10 years.<sup>3</sup>

Congress initially authorized state agencies to allocate roughly \$9 billion in credits over three years: 1987, 1988, and 1989.<sup>4</sup> Subsequent legislation modified the credit, both to make technical corrections to the original act and to make substantive changes in the program.<sup>5</sup> For example, the commitment period (during which qualifying units must be rented to low-income households) was extended from 15 years to 30 years.<sup>6</sup> States were also required to

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<sup>1</sup> Public Law (PL) 99-514.

<sup>2</sup> Owners may elect to set aside at least 20 percent of the units for households at or below 50 percent of area median income or at least 40 percent for households with incomes below 60 percent of area median. Rents in qualifying units are limited to 30 percent of the elected 50 or 60 percent of income.

<sup>3</sup> The credit percentages are adjusted monthly, but fall in the neighborhood of 4 percent or 9 percent of qualifying basis. In general, credits are intended to provide a discounted stream of benefits equal to either 30 percent (for the 4 percent credit) or 70 percent (for the 9 percent credit) of the property's qualifying basis. The 30 percent credit is used for federally subsidized new construction or rehab. The 70 percent credit is used for non-federally subsidized rehab or construction.

<sup>4</sup> Assumes approximately \$300 million in allocation authority in each year, with annual credits taken for 10 years.

<sup>5</sup> See Technical and Miscellaneous Revenue Act of 1988 (PL 100-647), Omnibus Budget Reconciliation Act of 1989 (PL 101-239), and Omnibus Reconciliation Act of 1990 (PL 101-508).

<sup>6</sup> The Omnibus Reconciliation Act of 1989 extended the commitment period from 15 to 30 years. However, project owners are allowed to sell or convert the project to conventional market housing if they apply to the state tax credit allocation agency and the agency is unable to find a buyer (presumably a non-profit) willing

ensure that no more credit was allocated to a project than was necessary for financial viability. The credit was also made a permanent part of the Federal tax code (Section 42) in 1993.<sup>7</sup> In 2000, Congress significantly expanded the tax credit by increasing the per-capita cap from \$1.25 to \$1.50 in 2001 and to \$1.75 in 2002, with annual adjustments for inflation starting in 2003.<sup>8</sup> The tax credit cap of \$1.25 per capita had not been adjusted since the program's inception.

Since 1987—the first year of the credit program—the LIHTC has become the principal mechanism for supporting the production of new and rehabilitated rental housing for low-income households. However, given the decentralized nature of the program, there is no single federal source of information on tax credit production. Most of the data about the early implementation of the program was compiled by the National Council of State Housing Agencies (NCSHA), an association of state housing finance agencies, the entities responsible for allocating tax credits in most states. More recent data, through 1994, was collected in a database Abt Associates created for HUD and by the General Accounting Office (GAO).<sup>9</sup>

## 1.2 Objectives of the Research

The goals of this research project are to: (1) collect data from LIHTC allocating agencies on tax credit projects placed in service after 1994; (2) describe the characteristics of these projects and their local areas; and (3) provide a clean, documented data file that can be used as a reliable sampling frame for future, more in-depth research.

During the first year of data collection for this project, data were collected on properties placed in service from 1995 to 1998. The results of this first wave of data collection were presented in the *Updating the Low Income Tax Credit (LIHTC) Database* Final Report dated December 2000. This report updates the December 2000 report by adding data on properties placed in service in 1999, as well as additional data on projects placed in service in 1998.<sup>10</sup> During 2002, data will be collected on properties placed in service in 2000 and will be presented in a similar report.

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to maintain the project as low-income for the balance of the 30 year period. If no such buyer is found, tenants are protected with rental assistance for up to three years.

<sup>7</sup> See Omnibus Budget Reconciliation Act of 1993 (PL 103-66).

<sup>8</sup> See Community Renewal Tax Relief Act of 2000 (PL 106-554).

<sup>9</sup> See “Development and Analysis of the National LIHTC Database,” Abt Associates, July 1996, and “Tax Credits: Opportunities to Improve Oversight of the Low-Income Housing Program,” GAO/GGD RCED-97-55, March 1997.

<sup>10</sup> When data were collected in 2000 on properties placed in service from 1995 through 1998, several agencies did not yet have complete data on 1998 properties in their files, so data were partial for 1998 properties in the December 2000 Final Report.

The approach used for this research project is based on the method used by Abt Associates Inc. in developing the database of tax credit projects placed in service during 1987-1994. Our research approach called for working closely with each of the allocating agencies to maximize the data provided with a minimum of burden to each agency.

### **1.3 Organization of this Report**

This report is organized as follows:

- **Chapter One** provides an overview of the LIHTC program and the objectives of the research.
- **Chapter Two** describes the data collection approach and summarizes the results of data collection in terms of agency response and data quality.
- **Chapter Three** presents characteristics of tax credit properties placed in service from 1995 through 1999.
- **Chapter Four** presents information about the location of tax credit properties placed in service from 1995 through 1999.
- **Chapter Five** summarizes key findings in a conclusion.
- **Appendix A** presents findings by state.
- **Appendix B** contains the data collection form sent to tax credit allocating agencies.
- **Appendix C** presents a detailed description of the database and the data dictionary.

# Chapter Two

## Data Collection and Database Creation

### 2.1 Data Collection Approach

The data collection approach used for this research project is based on the method used by Abt Associates Inc. in developing the database of tax credit projects placed in service during 1987-1994. The research approach called for working closely with each of the 58 allocating agencies to maximize the data provided with a minimum of burden to each agency.

Data collection included several steps:

- identifying the appropriate contact person in each allocating agency
- mailing data requests and forms to the agencies
- following up and coordinating with the agencies for the first data submission (properties placed in service from 1995 to 1998) and the second data submission (properties placed in service in 1999)
- data entry
- verifying clean data with states and updating any corrections received from states
- geocoding
- data cleaning and merging in secondary data

Each of the steps is described in detail below.

**Identifying the appropriate contact person in each tax credit allocating agency.** The first step in the data collection was to identify the appropriate contact person in each of the allocating agencies. As a starting point, we compiled contact data from the previous study, as well as updated lists of contacts from the National Council of State Housing Finance Agencies web site. Contact names were then verified by telephone prior to our initial contact.

**Mailing data requests and forms to the agencies.** The data request was made through a letter from Abt Associates, accompanied by a letter from the HUD Deputy Assistant Secretary for Economic Affairs, along with blank data forms. This mailing was followed up by a telephone call from a project staff member. Where appropriate, we mailed a spreadsheet shell or an MS Access table with data entry screens for an agency to enter data, or a listing of the variables needed if an agency chose to download the data from their own data systems.

During collection of data on properties placed in service from 1995 to 1998, several agencies did not submit data on all 1998 properties because, at the time (in 1999), they did not yet have complete files on all 1998 properties. Therefore, during collection of data on properties placed in service in 1999, we asked agencies that previously had sent incomplete data on 1998 properties to resend complete 1998 data.

**Following up and coordinating for first data submission.** After mailing data requests to agencies, we conducted intensive follow-up with most states to ensure that data were submitted in a usable form and in a timely manner. Research assistants and analysts were responsible for the day-to-day tracking and follow-up of data receipt.<sup>11</sup>

**Data review and follow-up.** Upon receipt of the data, it was reviewed for completeness and consistency. Any problems identified were flagged and checked, and staff followed up with the states with questions if necessary. This process included a manual review of the agencies' submissions to detect a range of possible problems, including:

- submission of data on allocations rather than placements in service
- duplicate or multiple allocation projects
- building-level instead of project-level data
- incomplete or "bad" addresses
- other inconsistencies or omissions.

**Data entry.** As complete data were received from each site they were entered into a property-level database. Hard copy data were double key-entered by data entry personnel. Computerized files were added to the database by the programmer, again upon receipt.

**Verifying cleaned data.** Once each agency's data were entered, additional queries were run on the data to ensure consistency within and across records. The data were sent to each agency for verification, along with details on inconsistencies found. Any corrections received from states were used to update the file.

**Geocoding project addresses.** Geocoding of project addresses was done by Abt Associates staff using MapMarker Plus version 7.0 software. MapMarker (the geocoding component of the MapInfo family of mapping products) geocodes each address with the latitude and longitude markers and an extended census tract designation that incorporates the state and county FIPS code, census tract, block group, and block number for each address. For this project, we used geocoding to determine each project's 1990 census tract. Once geocoded, we used MapInfo Professional version 6.0 mapping software and electronic maps of the Census 2000 geographic entities to determine each project's 2000 census tract. Using census

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<sup>11</sup> About half the agencies submitted their data by paper means and half submitted it electronically.

tract-level databases and data on OMB-defined MSAs provided by HUD, we determined MSA and place codes.

**Merging in secondary data.** Several types of locational variables were used to describe each property including census tract characteristics and MSA characteristics. Demographic data, including data on minorities, female-headed families with children, and renter versus owner occupancy, were taken from the 2000 Census. As data on income and poverty were not yet available from the 2000 Census at the time of this analysis, 1990 Census data were used for these variables. As geocoding was completed, the tracts and MSAs from which census data were needed were compiled, and census data were extracted or downloaded.

## 2.2 Results of Data Collection

The updated database contains data from all 58 allocating agencies that allocate tax credits in their states or local jurisdictions.<sup>12</sup> Exhibit 2-1 lists the agencies.

The data collection effort required intensive follow-up with the allocating agencies to ensure a high response rate and complete and accurate data. A number of agencies took several months to send the data, generally citing staffing constraints. In addition, some agencies initially provided only lists of projects that were allocated tax credits rather than projects that had actually been placed in service. Finally, many agencies initially sent incomplete data that required follow-up. However, the agencies ultimately provided very complete data.

Overall, the updated database includes information on 6,571 projects and 431,798 units placed in service between 1995 and 1999. This includes an additional 319 projects (more than 25,000 units) placed in service in 1998 and 44 projects (nearly 5,000 units) placed in service in 1997 that were not included in the previous update to the database.<sup>13</sup> See Appendix C for more details.

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<sup>12</sup> The New York State Division of Housing and Community Renewal did not submit data on properties placed in service in 1999. Based on production from 1995 to 1998, we estimate 1999 production for this agency to be roughly 50 projects and 2,500 units.

<sup>13</sup> In addition, there was one less 1996 property (56 units) in the updated database due to data cleaning.

### Exhibit 2-1: Tax Credit Allocating Agencies

Alabama Housing Finance Authority	Nebraska Investment Finance Authority
Alaska Housing Finance Corporation	Nevada Department of Business & Industry
Arizona Department of Commerce	New Hampshire Housing Finance Authority
Arkansas Development Finance Authority	New Jersey Housing & Mortgage Finance Agency
California Tax Credit Allocation Committee	New Mexico Mortgage Finance Authority
City of Chicago Department of Housing	New York State Division of Housing & Community Renewal
Colorado Housing & Finance Authority	New York State Housing Finance Agency
Connecticut Housing Finance Authority	City of New York Department of Housing Preservation & Development
Delaware State Housing Authority	North Carolina Housing Finance Agency
District of Columbia Department of Housing & Community Development	North Dakota Housing Finance Agency
District of Columbia Housing Finance Agency	Ohio Housing Finance Agency
Florida Housing Finance Corporation	Oklahoma Housing Finance Agency
Georgia Department of Community Affairs	Oregon Housing & Community Services
Housing & Community Development Corporation of Hawaii	Pennsylvania Housing Finance Agency
Idaho Housing & Finance Association	Puerto Rico Housing Finance Corporation
Illinois Housing Development Authority	Rhode Island Housing & Mortgage Finance Corporation
Indiana Housing Finance Authority	South Carolina Housing Finance & Development Authority
Iowa Finance Authority	South Dakota Housing Development Authority
Kansas Department of Commerce & Housing	Tennessee Housing Development Agency
Kentucky Housing Corporation	Texas Department of Housing & Community Affairs
Louisiana Housing Finance Agency	Utah Housing Finance Agency
Maine State Housing Authority	Vermont Housing Finance Agency
Maryland Department of Housing & Community Development	Virgin Islands Housing Finance Authority
Massachusetts Department of Housing & Community Development	Virginia Housing Development Authority
Massachusetts Housing Finance Agency	Washington State Housing Finance Commission
Michigan State Housing Development Authority	West Virginia Housing Development Fund
Minnesota Housing Finance Agency	Wisconsin Housing & Economic Development Authority
Mississippi Home Corporation	Wyoming Community Development Authority
Missouri Housing Development Commission	Montana Board of Housing

Exhibit 2-2 shows the coverage of the database for projects placed in service between 1995 and 1999. The exhibit indicates the percentage of projects and units missing the variable in each year. For comparison purposes, the exhibit also shows the coverage for projects placed in service between 1992 and 1994. Overall, the data collected in the LIHTC database represent the best data that state agencies were able to supply as of 2001. Nevertheless, there are a number of important caveats to keep in mind regarding the database and the analysis presented in the subsequent sections. In particular:

- Because few states compiled data specifically for our data request, source documents often included a variety of different listings and printouts that had to be matched to complete the database. In using these lists, we attempted to verify any assumptions used with agency representatives; however, only about 60 percent of the agencies responded to these verification requests. For the same reason, variable coverage is not complete—that is, we were limited to the items states already had compiled (although for different purposes).
- Finally, missing data was fairly common in a few variables, for example bedroom size distribution (14.8 percent) and increase in basis (19.0 percent). Although missing variables are concentrated in particular states, we have no reason to suspect that these variables do not provide good representative statistics for LIHTC projects nationally.

These results represent a major improvement in data coverage relative to the earlier data collection efforts. The percentage of projects and units that had missing data dropped considerably for all variables, with particularly dramatic improvement for number of bedrooms, allocation year, construction type, credit type, increase in basis. Further, within the 1995-1999 period, data coverage improved significantly for owner address, increase in basis, and number of bedrooms.<sup>14</sup> In summary, the HUD LIHTC database offers substantially complete coverage of LIHTC projects placed in service between 1995 and 1999 and reasonable coverage of projects placed in service in earlier years.

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<sup>14</sup> For example, between 1995 and 1999, the percentage of units with missing bedroom information decreased from 18 percent to only 9 percent. Similarly, the percentage of units in projects missing owner address dropped from 12 percent to only 3 percent.

**Exhibit 2-2**  
**LIHTC Database: Percent Missing Data by Variable**  
**1992-1999**

Variable	1992-1994		1995-1999	
	Percent of Projects with Missing Data	Percent of Units with Missing Data	Percent of Projects with Missing Data	Percent of Units with Missing Data
Project Address <sup>a</sup>	1.1%	1.5%	0.4%	0.2%
Owner Contact Data	18.4%	18.3%	7.8%	6.7%
Total Units	0.7%	---	0.2%	---
Low Income Units	2.1%	3.2%	0.5%	0.3%
Number of Bedrooms <sup>b</sup>	53.6%	58.3%	14.8%	14.6%
Allocation Year	12.5%	14.4%	0.1%	0.1%
Construction Type (new/rehab)	26.8%	28.7%	1.6%	1.6%
Credit Type	47.9%	48.3%	10.8%	12.1%
Nonprofit Sponsorship	26.9%	23.7%	10.7%	10.9%
Increase in Basis	49.8%	46.8%	19.0%	14.2%
Use of Tax-Exempt Bonds	23.5%	24.3%	11.9%	13.3%
Use of RHS Section 515	25.5%	27.0%	14.2%	17.2%

<sup>a</sup> Indicates only that some location was provided. Address may not be a complete street address.

<sup>b</sup> For some properties, bedroom count was provided for most but not all units, in which case data is not considered missing. The percent of units with missing bedroom count data is based on properties where no data were provided on bedroom count.

# Chapter Three

## Characteristics of Tax Credit Projects

This chapter presents information on the characteristics of Low Income Housing Tax Credit (LIHTC) projects based on information obtained from the state allocating agencies. Information is presented for 6,571 projects and 431,798 units placed in service between 1995 and 1999.

### 3.1 Basic Property Characteristics

Exhibit 3-1 presents information on the basic characteristics of LIHTC properties by placed-in-service year. Placed-in-service projects are those that have received a certificate of occupancy and for which the state has submitted an IRS Form 8609 indicating that the property owner is eligible to claim low-income housing tax credits.<sup>15</sup>

On average, approximately 1,300 projects and 86,000 units were placed into service during each of the study years. The average LIHTC project placed in service during this period contained 66 units. Tax credit properties tend to be larger than the average apartment property. Fully 39 percent of LIHTC projects are larger than 50 units, compared to only 2 percent of all apartment properties nationally. In terms of units, more than three-quarters of LIHTC units were in properties with more than 50 units, compared with less than half of apartment units in general.<sup>16</sup>

Of the units produced, the vast majority were qualifying units, or tax credit units—that is, units reserved for low-income use, with restricted rents, and for which low-income tax credits can be claimed. The distribution of qualifying ratios (the percentage of tax credit units in a project) shows that the vast majority of projects are composed almost entirely of low-income units. Only a very small proportion of the properties have lower qualifying ratios, reflecting the minimum elections set by the program (i.e., a minimum of 40 percent of the units at 60 percent of median income or 20 percent of the units at 50 percent of median). Overall, the ratio of qualifying units to total units was 0.96 for properties placed in service from 1995 through 1999.

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<sup>15</sup> IRS reporting is on a building-by-building basis. However, in this study, we use the LIHTC project as a unit of analysis. A project would include multi-building properties.

<sup>16</sup> National Multi Housing Council, tabulation of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey. Data do not include public housing projects.

Exhibit 3-1 also presents information on the size of the LIHTC units based on the number of bedrooms. As shown, the average unit had 2.0 bedrooms. Nearly one quarter (24 percent) of LIHTC units in the study period had three or more bedrooms, compared to only 11 percent of all apartment units nationally, and 16 percent of all apartments built from 1990 to 1997.<sup>17</sup>

**Exhibit 3-1**  
**Characteristics of LIHTC Projects**  
**1995-1999**

<b>Year Placed in Service</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>All Projects 1995- 1999</b>
Number of Projects	1,370	1,298	1,314	1,213	1,376	6,571
Number of Units	78,940	81,360	84,531	86,579	100,388	431,798
Average Project Size	57.6	62.7	64.3	71.4	73.0	65.7
Distribution by Project Size						
0-10 Units	14%	14%	8%	6%	7%	10%
11-20 Units	12%	12%	13%	11%	12%	12%
21-50 Units	42%	37%	42%	39%	36%	39%
51-99 Units	17%	18%	19%	22%	22%	19%
100+ Units	16%	20%	19%	22%	23%	20%
Average Qualifying Ratio	97%	97%	96%	96%	95%	96%
Distribution by Ratio						
0-20%	0%	0%	0%	0%	0%	0%
21-40%	1%	1%	1%	2%	1%	1%
41-60%	2%	2%	2%	2%	3%	2%
61-80%	2%	3%	5%	4%	7%	4%
81-90%	2%	2%	2%	2%	2%	2%
91-95%	2%	2%	2%	1%	3%	2%
96-100%	91%	90%	87%	89%	84%	88%
Average Number of Bedrooms	1.9	2.0	1.9	2.0	2.0	2.0
Distribution of Units by Size						
0 Bedrooms	4%	4%	4%	3%	4%	4%
1 Bedroom	31%	29%	30%	27%	28%	29%
2 Bedrooms	44%	44%	42%	44%	42%	43%
3 Bedrooms	19%	20%	21%	22%	22%	21%
4+ Bedrooms	3%	3%	3%	4%	4%	3%

Notes: The analysis dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. The database contains missing data for qualifying ratio (percentage of tax credit units) (0.5%) and bedroom count (14.8%). Totals may not sum to 100 percent because of rounding.

<sup>17</sup> U.S. Bureau of Census, 1997 American Housing Survey. Data refer to vacant and occupied rental apartments in buildings with two or more units.

Exhibit 3-2 presents additional information on the characteristics of the LIHTC projects and units, beginning with the type of construction: new, rehabilitation, or a combination of new and rehabilitation (for multi-building projects). As shown, LIHTC projects placed in service from 1995 through 1999 were predominately new construction, accounting for about two-thirds (65 percent) of the projects. Rehabilitation of an existing structure was used in about one-third (34 percent) of the projects, while a combination of new construction and rehabilitation was used in only a small fraction of LIHTC projects.<sup>18</sup>

The tax credit program requires that 10 percent of each state's LIHTC dollar allocation be set aside for projects with nonprofit sponsors. As shown in Exhibit 3-2, overall 30 percent of LIHTC projects placed in service from 1995 to 1999 had a nonprofit sponsor.

**Exhibit 3-2**  
**Additional Characteristics of LIHTC Projects**  
**1995-1999**

Year Placed in Service	1995		1996		1997		1998		1999		All Projects 1995-1999	
	Pro-jects	Units	Pro-jects	Units								
Construction Type												
New	66%	62%	63%	60%	63%	61%	66%	65%	65%	65%	65%	62%
Rehab	33%	36%	36%	39%	34%	37%	33%	35%	33%	33%	34%	35%
Both	1%	1%	1%	2%	3%	2%	1%	<1%	2%	1%	2%	1%
Nonprofit Sponsor	19%	22%	25%	24%	35%	30%	35%	27%	35%	30%	30%	27%
RHS Section 515	23%	12%	16%	8%	14%	7%	12%	6%	11%	5%	15%	8%
Tax-Exempt Bond Financing	4%	10%	6%	16%	8%	20%	13%	31%	18%	39%	10%	24%
Credit Type												
30 Percent	26%	19%	20%	21%	20%	25%	27%	38%	29%	41%	24%	29%
70 Percent	63%	67%	69%	66%	71%	64%	63%	53%	63%	51%	66%	60%
Both	11%	14%	11%	13%	9%	11%	9%	9%	8%	8%	10%	11%

Notes: The analysis dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. The database contains missing data for construction type (1.6%), nonprofit sponsor (10.7%), RHS Section 515 (14.2%), bond financing (11.9%), and credit type (10.8%). Totals may not sum to 100 percent because of rounding.

Exhibit 3-2 also presents information about two common sources of additional subsidy: use of tax-exempt bonds (which are issued by the same agency that allocates the credit), and Rural Housing Service (RHS)<sup>19</sup> Section 515 loans (which imply a different regulatory regime and different compliance monitoring rules). Overall, RHS Section 515 loans were used in about 15 percent of the projects and 8 percent of the units placed in service during the study

<sup>18</sup> The combination of new construction and rehabilitation is possible in multi-building properties, where one building was rehabilitated and one building was newly constructed.

<sup>19</sup> The Rural Housing Service was formerly called the Farmers Home Administration.

period, with the proportion of RHS projects dropping steadily throughout the period, reflecting a dramatic decrease in Section 515 loans nationally (see Section 3.2 of this chapter).

The final characteristic presented in Exhibit 3-2 is the credit type that was used by LIHTC projects. The 30 percent present value credit is used for acquisition and when other federal financing is used for the rehab or new construction, while the 70 percent present value credit is available to non-federally financed rehab or construction. Roughly two-thirds (66 percent) of the LIHTC projects placed in service during the study period have a 70 percent credit, one-fourth (24 percent) have a 30 percent credit, and 10 percent have both.

Exhibit 3-3 presents more detail on the type of credit, providing a breakdown of credit percentage based on construction type and financing. Projects with 70 percent credits are more likely to be new construction than those with 30 percent credits (78 percent compared with 58 percent) and less likely to be rehabilitation projects (21 percent compared with 41 percent).

**Exhibit 3-3**  
**Characteristics of LIHTC Projects by Credit Type**  
**1995-1999**

Credit Type	Projects			Units		
	30%	70%	Both	30%	70%	Both
Construction Type						
New	58%	78%	9%	56%	78%	11%
Rehab	41%	21%	84%	43%	21%	83%
Both	1%	1%	7%	1%	1%	6%
RHS Section 515	52%	2%	16%	20%	1%	11%
Tax-Exempt Bond Financing	20%	1%	11%	34%	1%	5%

Notes: The analysis dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. The database contains missing data for construction type (1.6%), RHS Section 515 (14.2%), bond financing (11.9%), and credit type (11%). When data are presented in a cross tabulation of two variables, the percentage of missing data may increase. Totals may not sum to 100 percent because of rounding.

Exhibit 3-3 also shows the breakdown of two major federal subsidies by credit type. As shown, 52 percent of projects with 30 percent credits have RHS Section 515, and 20 percent have tax-exempt bond financing. A very small percentage of projects with 70 percent credits have RHS or tax-exempt bond financing. In general, tax credit projects that receive other sources of federally subsidized funding are not eligible for the 70 percent credit, but there are exceptions to this rule. For example, there are two circumstances under which a project can receive tax-exempt bonds and still claim a 70 percent tax credit: (1) if the developer excludes the bond proceeds from the eligible basis, or (2) if the developer pays off the debt associated

with the bond financing before the property is placed in service.<sup>20</sup> In addition, tax credit projects with HOME funds can, in some cases, receive a 70 percent credit. Although the tax code does not specifically provide for a 70 percent credit for RHS programs, it appears that exceptions have been made in a small number of cases.<sup>21</sup>

We also examined key project characteristics for three specific groups of tax credit properties: nonprofit-sponsored, RHS Section 515, and tax-exempt bond-financed projects. As shown in Exhibit 3-4, bond-financed projects are the largest of these three groups, with an average project size of 158 units, and with 62 percent of bond-financed properties having over 100 units. By contrast, RHS projects are particularly small, with an average size of just 31 units. Nonprofit projects, with an average size of 58 units, are slightly smaller than the average size of 66 units for the universe of properties placed into service from 1995 through 1999. Bond-financed tax credit projects also stand out because of their lower-than-average qualifying ratio. In terms of construction type, the three groups show similar splits between new construction and rehab.

**Exhibit 3-4**  
**Characteristics of Specific LIHTC Property Types**  
**1995-1999**

	Type of LIHTC Project			All LIHTC Projects 1995-1999
	Nonprofit Sponsor (N = 1,756)	Tax-Exempt Bond Financing (N = 559)	RHS Section 515 (N = 869)	
Average Project Size (units)	58.3	157.8	30.9	65.7
Distribution by Project Size				
0-10 units	8%	1%	3%	10%
11-20 units	16%	3%	19%	12%
21-50 units	41%	13%	70%	39%
51-99 units	20%	22%	7%	19%
100+ units	15%	62%	1%	20%
Construction Type				
New	57%	57%	57%	65%
Rehab	39%	42%	42%	34%
Both	4%	1%	0%	2%
Average Qualifying Ratio	97%	86%	99%	96%

Notes: The analysis dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. The database contains missing data for construction type (1.6%), qualifying ratio (0.5%), nonprofit sponsor (10.7%), RHS Section 515 (14.2%), and bond financing (11.9%). Totals may not sum to 100 percent because of rounding.

<sup>20</sup> Information provided by the National Council of State Housing Agencies (NCSHA)

<sup>21</sup> In testimony before the House Subcommittee on Housing and Community Opportunity, Robert P. Yoder (past President of Council for Affordable and Rural Housing) testified on July 17, 2001, that the tax credit rules should be clarified to permit the 70 percent credit for RHS programs.

Finally, we examined the length of time it took for an allocated project to be placed in service. Exhibit 3-5 shows, for each placed-in-service year, the percentage of projects from different allocation years. During data collection, we requested the earliest allocation year and the latest placed-in-service year when a project had multiple allocation or place-in-service years. For each of the placed-in-service years, over 80 percent of the projects had allocation dates either one or two years before the place-in-service year, with the bulk of the remainder allocated in the same year. Only a very small fraction of projects were allocated credits more than two years before the placed-in-service date.

**Exhibit 3-5**  
**Percentage of Projects Placed in Service from Different Allocation Years**  
**1995-1999**

Year Tax Credit Allocated	Year Placed in Service					
	1995	1996	1997	1998	1999	1995-1999
1992 or earlier	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%
1993	35.1%	0.8%	0.2%	0.4%	0.0%	8.0%
1994	49.2%	43.4%	1.9%	0.1%	0.2%	19.3%
1995	15.3%	42.8%	41.7%	3.1%	0.4%	20.6%
1996	0.0%	13.0%	40.6%	40.2%	4.5%	19.1%
1997	0.0%	0.0%	14.9%	38.3%	41.4%	18.7%
1998	0.0%	0.0%	0.2%	14.8%	38.8%	10.9%
1999	0.0%	0.0%	0.2%	3.1%	14.8%	3.7%
<b>Total</b>	100%	100%	100%	100%	100%	100%

Notes: The analysis dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. Totals may not sum to 100 percent because of rounding.

### 3.2 Changes in Characteristics Over Time

The LIHTC database is useful for examining trends in housing production under the tax credit program not only because we can see yearly changes within the study period but also because we can compare it to data from HUD's earlier study of tax credit properties placed in service from 1992 through 1994. In this section, we present trends in characteristics over time.

Exhibit 3-6 presents key characteristics for LIHTC projects placed in service during the period 1992-1994 and for each year from 1995 through 1999. As shown, the number of projects placed in service annually was consistent over the years, with an average of approximately 1,300 projects per year. However, the number of *units* placed in service rose from the earlier study period to later years, reflecting a larger average project size. The larger project size in the current study period is associated with a higher percentage of tax-exempt bond financed projects compared with the earlier study period. On average, tax-exempt bond financed projects are more than twice as large (158 units) compared to the universe of projects (66 units) placed in service from 1995 to 1999.

**Exhibit 3-6**  
**Characteristics of LIHTC Properties Over Time:**  
**1992-1994 Compared to Subsequent Years**

<b>Year Placed in Service</b>	<b>1992-1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Annual Number of Projects	1,329 <sup>a</sup>	1,370	1,298	1,314	1,213	1,376
Annual Number of Units	56,054 <sup>a</sup>	78,940	81,360	84,531	86,579	100,388
Annual Number of Low-Income Units	51,907 <sup>a</sup>	73,317	76,001	77,366	79,357	91,638
Average Project Size (units)	42	58	63	63	71	73
Distribution by Size						
0-10 units	22%	14%	14%	8%	6%	7%
11-50 units	56%	54%	49%	55%	50%	48%
51-99 units	13%	17%	18%	18%	22%	22%
100+ units	10%	16%	20%	18%	22%	23%
Distribution of Units by Size						
0 Bedrooms	6%	4%	4%	4%	3%	4%
1 Bedroom	40%	31%	29%	30%	27%	28%
2 Bedrooms	39%	44%	44%	42%	44%	42%
3 Bedrooms	15%	19%	20%	21%	22%	22%
4+ Bedrooms	1%	3%	3%	3%	4%	4%
Average Qualifying Ratio	98%	97%	97%	96%	96%	95%
Distribution of Projects by Construction Type						
New	66%	66%	63%	63%	66%	65%
Rehab	33%	33%	36%	34%	33%	33%
Both	1%	1%	1%	3%	1%	2%
Nonprofit Sponsor	20%	19%	25%	35%	35%	35%
RHS Section 515	35%	23%	16%	14%	12%	11%
Tax-Exempt Bond Financing	3%	4%	6%	8%	13%	18%

<sup>a</sup>Average for 1992, 1993, and 1994.

Notes: Data for 1992-1994 are from *Development and Analysis of the National Low-Income Housing Tax Credit Database*, prepared by Abt Associates for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, July 1996. The 1995-1999 dataset includes 6,571 projects and 431,798 units placed in service between 1995 and 1999. The database contains missing data for bedroom count (14.8 %), qualifying ratio (0.5%), construction type (1.6%), nonprofit sponsor (10.7%), RHS Section 515 (14.2 %), and bond financing (11.9%). Qualifying ratio is a simple average of the qualifying ratio of projects. Totals may not sum to 100 percent because of rounding.

The average project size increased steadily, from 42 units in the earlier study period to 73 units in 1999. Similarly, the proportion of projects with 10 or fewer units dropped from 22 percent in 1992-1994 to only 7 percent in 1999. At the same time, the percentage of properties with 50 or more units nearly doubled, from 23 percent to 45 percent. Not only did the projects get larger, but so did the units. As shown in Exhibit 3-6, while the proportion of one-bedroom apartments dropped from 40 percent in 1992-1994 to 28 percent in 1999, the share of three- and four-bedroom apartments rose from 16 percent to 26 percent during the same period.

We also see an increase in nonprofit sponsorship and tax-exempt bond financing, and a decrease in the use of the RHS Section 515 program. The share of properties with nonprofit sponsors increased substantially, from 20 percent of properties in 1992-1994 to 35 percent in 1999. At the same time, the proportion of properties with RHS funding dropped dramatically, from 35 percent to only 11 percent, reflecting the sharp decrease in Section 515 loans nationwide from \$512 million in 1994 to \$151 million in 1996 to \$114 million in 1999.<sup>22</sup> Finally, the percentage of projects financed with bonds jumped from 3 percent to 18 percent, reflecting the increased competition among projects for tax credits. Developers often must secure tax-exempt bond financing to make their applications more competitive in the eyes of the allocating agency. In addition, bond-financed properties are eligible for credits outside the per-capita state credit ceilings.

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<sup>22</sup> RHS Section 515 funding information provided by the Housing Assistance Council web page ([www.ruralhome.org/rhs/inception/515.htm](http://www.ruralhome.org/rhs/inception/515.htm)) on February 7, 2002.

## Chapter Four

# Location of Tax Credit Projects

This chapter presents information on the locations of Low Income Housing Tax Credit (LIHTC) projects placed in service from 1995 through 1999. Specifically, it addresses regional patterns of development, whether properties are located in central cities, suburbs, or rural areas, the characteristics of the neighborhoods in which LIHTC projects are developed, and changes in these patterns over time.

In order to analyze information related to property location, projects in the LIHTC database were geocoded—that is, linked with their census tract—based on the address information provided by the allocating agencies. Geocoding was performed for the entire LIHTC database using MapMarker Plus geocoding software (version 7.0) from the MapInfo Corporation. Overall, addresses provided by the allocating agencies were successfully matched with a census tract for 91 percent of the projects in the database.<sup>23</sup> Regionally, the success rates for geocoding were 94 percent in the Northeast, 93 percent in the Midwest, 92 percent in the West, and 90 percent in the South.

For most of the analyses presented in this chapter, including location type (central city, suburb, or non-metro area) and characteristics of census tracts in which LIHTC properties are located, analyses are based on the dataset of geocoded projects placed in service from 1995 through 1999. However, for analysis of regional patterns of development, census tract information is not needed, so analyses are based on all projects (not solely geocoded projects).<sup>24</sup>

### 4.1 Regional Patterns of Development

In this section, we examine the regional distribution of LIHTC properties and the characteristics of projects by Census region. Exhibit 4-1 presents the regional distribution of LIHTC projects and units, with a comparison of the distribution of all LIHTC projects to that

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<sup>23</sup> To obtain an accurate match using this software, property addresses needed to have complete and accurate house numbers, street names, and zip codes. Properties with complete and accurate addresses were geocoded during an initial, automatic pass. Properties not geocoded during the automatic pass were run through the system again in interactive mode. During the interactive pass, we attempted to correct property addresses by correcting spelling errors and by using a variety of online databases to obtain corrected zip codes and property address information. Properties for which we could not determine a complete and accurate address were left ungeocoded.

<sup>24</sup> Projects in Puerto Rico and the U.S. Virgin Islands, which are not in any of the four Census regions, were excluded from the analysis of location characteristics.

of the geocoded subset. As shown, the South accounts for the largest share of all LIHTC projects (35 percent), followed by the Midwest (29 percent), West (18 percent), and Northeast (17 percent). Looking at units, as opposed to projects, the South accounts for an even larger share (41 percent), with 24 percent in the Midwest, 21 percent in the West, and 14 percent in the Northeast. To provide context, the findings on LIHTC projects and units were compared to rental units and population in general. Overall, the South leads the nation in total rental units at 34 percent of units nationally, corresponding closely to the distribution of LIHTC projects in the South. The West accounts for 24 percent of all rental units in the United States, followed by the Northeast and Midwest, which each account for 21 percent of all rental units. In contrast, LIHTC units are more likely to be in the Midwest than the West. The South leads the nation in population, with 37 percent of the population, compared with 23 percent in the Midwest, 22 percent in the West and 19 percent in the Northeast. These numbers roughly correspond to the distribution of LIHTC projects and units across all regions.

As shown in Exhibit 4-1, the distribution of geocoded properties closely matches the distribution of all LIHTC properties in the database. Given this close match, as well as the high rate of geocoding overall, we are confident that the geocoded data provide a reasonable basis for the analyses presented in this report.

**Exhibit 4-1**  
**Regional Distribution of LIHTC Projects and Units**  
**1995-1999**

Region	All LIHTC Projects		Geocoded LIHTC Projects		All U.S. Rental Housing Units	U.S. Population
	Projects	Units	Projects	Units		
Northeast	17%	14%	18%	14%	21%	19%
Midwest	29%	24%	29%	24%	21%	23%
South	35%	41%	35%	41%	34%	37%
West	18%	21%	18%	21%	24%	22%

Notes: The dataset used in this analysis includes 6,528 projects and 429,809 units placed in service between 1995 and 1999. Of these, 5,986 projects and 406,862 units were geocoded. Projects and units in Puerto Rico and the Virgin Islands were excluded. Total population and rental units are based on 2000 Census data. Totals may not sum to 100 percent because of rounding.

Exhibit 4-2 presents the regional distribution of tax credit properties and units across the four years from 1995 to 1999, as well as multi-family units completed over the same time period. As noted in Section 4.5 of this chapter, which examines changes in location characteristics over time, the share of LIHTC production in the West more than tripled, while the number of properties in the Midwest dropped. The regional trends are similar when looking at unit distributions. Looking at multi-family rental unit completions nationally, the drop-off in Midwest properties is also seen. However, multi-family completions in the West remained

relatively stable from 1995 to 1999, so the increase in tax credit properties placed in service in this region shows a real increase in the usage of the tax credit relative to other finance methods.

The bottom panel of Exhibit 4-2 shows the ratio of new LIHTC units to new multifamily rental completions for each year during the study period. As shown, LIHTC units account for about one-fifth (22 percent) of all new apartment units nationally from 1995 to 1999, with higher shares in the Northeast (36 percent) and Midwest (28 percent).

**Exhibit 4-2**  
**Regional Distribution of LIHTC Projects and Units by Year Placed in Service**  
**1995-1999**

Year Placed in Service	1995	1996	1997	1998	1999	All Projects 1995-1999
LIHTC Projects	N=1,356	N=1,294	N=1,306	N=1,206	N=1,366	N=6,528
Northeast	18%	15%	21%	18%	16%	17%
Midwest	34%	33%	26%	24%	26%	29%
South	39%	37%	33%	34%	33%	35%
West	8%	14%	20%	24%	25%	18%
LIHTC Units	N=78,403	N=81,223	N=84,162	N=86,202	N=99,819	N=429,809
Northeast	16%	12%	17%	14%	12%	14%
Midwest	32%	29%	22%	19%	19%	24%
South	44%	42%	39%	42%	40%	41%
West	9%	17%	23%	26%	29%	21%
New Multifamily Completions	N=196,000	N=234,000	N=230,000	N=260,000	N=279,000	N=1,199,000
Northeast	6%	3%	5%	5%	8%	5%
Midwest	22%	21%	21%	19%	16%	20%
South	49%	49%	47%	52%	51%	50%
West	24%	27%	27%	24%	25%	25%
Ratio of New LIHTC Units to New Multifamily Rental Unit Completions						
U.S. Total	24%	20%	22%	21%	23%	22%
Northeast	45%	32%	55%	37%	22%	36%
Midwest	40%	31%	24%	19%	27%	28%
South	20%	18%	17%	19%	21%	19%
West	12%	14%	22%	24%	26%	20%

Notes: The dataset used in this analysis includes 6,528 projects and 429,809 units placed in service between 1995 and 1999. Projects and units in Puerto Rico and the Virgin Islands were excluded. Data on new multifamily rental unit completions were taken from the website <http://www.census.gov/ftp/pub/const/www/newresconstindex.html>. Totals may not sum to 100 percent because of rounding.

Exhibit 4-3 presents information on project characteristics by region. As shown, average project size ranges from 53 units in the Northeast to 77 units in the West, with an overall average of 66 units per project. Across all regions, the average ratio of qualifying tax credit units to total units was 96 percent, ranging from 93 percent in the Northeast to 98 percent in

the South. Unit size was fairly consistent across the four regions, with an average of 2.0 bedrooms per unit.

Construction type differed dramatically by region. In the Midwest, South, and West, new construction predominated, ranging from 69 percent of LIHTC projects in the South to 75 percent in the West. By contrast, only 32 percent of projects in the Northeast were newly constructed, reflecting the low rate of population growth and the relative lack of undeveloped land (and the related focus on rehabilitation) in that region. A small fraction of the projects in the Northeast, Midwest, and South combined new construction with rehab.

**Exhibit 4-3**  
**Characteristics of LIHTC Projects by Region**  
**1995-1999**

	Northeast	Midwest	South	West	All Regions
Average Project Size (Units)	53	54	76	77	66
Average Qualifying Ratio	93%	96%	98%	96%	96%
Average Number of Bedrooms	1.7	2.1	2.0	1.9	2.0
Distribution of Units by Size					
0 Bedrooms	6%	4%	1%	8%	4%
1 Bedroom	42%	26%	26%	30%	29%
2 Bedrooms	35%	44%	47%	39%	43%
3 Bedrooms	15%	21%	22%	20%	20%
4+ Bedrooms	3%	4%	3%	3%	3%
Construction Type					
New Construction	32%	72%	69%	75%	64%
Rehab	65%	26%	29%	25%	34%
Both	3%	2%	2%	<1%	2%
Nonprofit Sponsor	42%	27%	22%	42%	30%
RHS Sec515	7%	13%	21%	11%	15%
Tax-Exempt Bond Financing	11%	7%	8%	20%	10%
Credit Type					
30 Percent	17%	20%	27%	29%	24%
70 Percent	62%	72%	63%	69%	66%
Both	20%	8%	10%	2%	10%

Notes: The dataset used in this analysis includes 6,528 projects and 429,809 units placed in service between 1995 and 1999 (projects and units in Puerto Rico and the Virgin Islands were excluded). The dataset contains missing data for bedroom count (14.9%), construction type (1.6%), nonprofit sponsor (10.8%), RHS Section 515 (14.3%), bond financing (12.0%) and credit type (10.9%). Totals may not sum to 100 percent because of rounding.

Exhibit 4-3 also presents information on sponsor type and financing. As shown, properties were more likely to have been developed by a nonprofit sponsor in the Northeast and West (both 42 percent) compared with the Midwest (27 percent) and South (22 percent). Properties developed in the Northeast and West were also more likely to have tax-exempt bond financing than the other regions. Not surprisingly, the use of rurally oriented RHS

Section 515 financing differed by region, with projects in the South roughly twice as likely to use this loan source as projects in the Northeast or West. In all four regions, most projects received a 70 percent credit, with the proportion ranging from 62 percent in the Northeast to 72 percent in the Midwest. Projects with 30 percent credits accounted for most of the remaining projects in all regions but the Northeast, where 20 percent of projects received both types of credits. The greater use of both types of credits in the Northeast is likely associated with the combination of acquisition and non-federally financed rehab in many projects in that region.

## 4.2 Location of LIHTC Projects in Metro and Non-Metro Areas

This section examines the location of LIHTC projects in terms of central city, suburban (metro non-central city), or non-metro areas. Exhibit 4-4 shows the distribution of LIHTC projects and units by location type. As shown, 46 percent of tax credit units placed in service from 1995 to 1999 are located in central city neighborhoods, 41 percent are located in metro-area suburbs, and 14 percent are in non-metro areas. This distribution is similar to that of rental housing units in general: 46 percent are located in central cities, 38 percent in metro-area suburbs, and 16 percent in non-metro areas.<sup>25</sup>

**Exhibit 4-4**  
**Distribution of LIHTC Projects and Units by Location Type**  
**1995-1999**

<b>Year Placed in Service</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>All Projects 1995-1999</b>
Projects	N=1,250	N=1,217	N=1,220	N=1,103	N=1,196	N=5,986
Central City	42%	42%	41%	38%	40%	41%
Suburb	30%	30%	32%	35%	36%	33%
Non-metro	28%	27%	27%	27%	24%	27%
Units	N=75,699	N=77,610	N=80,864	N=81,624	N=91,065	N=406,862
Central City	48%	48%	48%	43%	43%	46%
Suburb	37%	39%	38%	43%	45%	41%
Non-metro	16%	13%	15%	13%	12%	14%

Notes: The dataset used in this analysis includes only geocoded projects. Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. Totals may not sum to 100 percent because of rounding.

Exhibit 4-5 shows the location type (central city, suburb, or non-metro area) by region. As shown, LIHTC units in projects in the Northeast are much more likely to be in central city locations than projects in other regions: 64 percent of units in the Northeast are in central

<sup>25</sup> U.S. Bureau of Census, 1997 American Housing Survey. Data refer to occupied rental housing.

cities, compared to 45 percent in the Midwest, 42 percent in both the South and West. At the same time, only 6 percent of Northeast projects are in non-metro areas, compared to non-metro concentrations at least twice as high in all other regions. When compared to rental units nationally, LIHTC units in the Northeast are more likely to be in central cities than rental units in general, while in the South, LIHTC units are more likely to be in the suburbs than rental units nationally.

**Exhibit 4-5**  
**Metro/Non-Metro Status of LIHTC Units by Region**  
**1995-1999**

	Northeast	Midwest	South	West	All Regions
<b>LIHTC Units</b>					
Central City	64%	45%	42%	42%	46%
Suburb	30%	35%	45%	46%	41%
Non-metro	6%	19%	14%	13%	14%
<b>All Rental Units</b>					
Central City	52%	44%	43%	47%	46%
Suburb	41%	34%	37%	42%	38%
Non-metro	8%	22%	20%	10%	15%

Notes: The dataset used in this analysis includes only geocoded projects. Suburb is defined here as metro area, non-central city. Metropolitan area definitions are as of June 30, 1999. Totals may not sum to 100 percent because of rounding.

Exhibit 4-6 presents information on project characteristics by type of location. As shown, projects located in suburban areas are the largest, with 84 units on average, compared with 77 units for central city projects and only 35 units for non-metro projects. The ratio of qualifying tax credit units to total units is high, however, regardless of location type. Unit sizes were fairly uniform across the three location types, with an average of 1.9 bedrooms per unit. However, central cities have a somewhat higher proportion of efficiency units.

Construction type varies considerably by location type, with roughly three-quarters (74 percent) of projects in suburbs and non-metro areas newly constructed, compared with less than half of projects in central cities (48 percent). Rehab accounts for only one-quarter of suburban and non-metro projects, compared with nearly half (49 percent) of those in central city neighborhoods.

Nonprofit sponsors were involved in a larger share of central city projects (39 percent) compared with suburban (26 percent) or non-metro projects (23 percent). The use of bond financing was much more common among projects in suburbs (15 percent) and central cities (12 percent) compared with non-metro properties (3 percent). As expected, RHS Section 515 loans were more common among non-metro properties (34 percent) and less common among

central city (1 percent) and suburban (10 percent) properties. The much more common use of the 30 percent credit among non-metro properties is associated with this funding source.

**Exhibit 4-6**  
**Characteristics of LIHTC Projects by Location Type**  
**1995-1999**

	Central City	Suburb	Non-Metro Area	Total
Average Project Size (Units)	77	84	35	68
Average Qualifying Ratio	95%	96%	98%	96%
Average Number of Bedrooms	1.9	1.9	1.9	1.9
Distribution of Units by Size				
0 Bedrooms	7%	2%	1%	4%
1 Bedroom	28%	29%	30%	29%
2 Bedrooms	42%	44%	45%	43%
3 Bedrooms	19%	21%	22%	20%
4+ Bedrooms	4%	3%	3%	3%
Construction Type				
New Construction	48%	74%	74%	64%
Rehab	49%	25%	25%	35%
Both	3%	1%	1%	2%
Nonprofit Sponsor	39%	26%	23%	30%
RHS Section 515	1%	10%	34%	13%
Tax-Exempt Bond Financing	12%	15%	3%	10%
Credit Type				
30 Percent	14%	24%	33%	23%
70 Percent	72%	68%	59%	67%
Both	14%	8%	7%	10%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for bedroom count (15.2%), construction type (1.4%), nonprofit sponsor (11.0%), RHS Section 515 (14.1%), bond financing (11.8%) and credit type (11.0%). Metropolitan area definitions are as of June 30, 1999. Suburb is defined here as metro area, non-central city. Totals may not sum to 100 percent because of rounding.

### 4.3 Location of LIHTC Projects in DDAs and QCTs

This section presents information on the location of LIHTC projects in Difficult Development Areas (DDAs) and Qualified Census Tracts (QCTs). As part of the Omnibus Reconciliation Act of 1989, Congress added provisions to the LIHTC program designed to increase production of LIHTC units in hard-to-serve areas. Specifically, the Act permits projects located in DDAs or QCTs to claim a higher eligible basis (130 percent of the standard basis) for the purposes of calculating the amount of tax credit that can be received. Designated by HUD, DDAs are metropolitan areas or non-metropolitan counties in which construction, land, and utility costs are high relative to incomes, and QCTs are tracts in

which at least 50 percent of the households have incomes less than 60 percent of the area median income. The data are based on DDA designations for the year placed in service. The QCT designations are from 1999.<sup>26</sup>

Exhibit 4-7 presents the distribution of LIHTC projects across DDAs and QCTs. As shown, 16 percent of projects are located in DDAs, and 24 percent are located in QCTs, for a total of 36 percent in designated areas.<sup>27</sup> In looking at units, the proportions are similar.

**Exhibit 4-7**  
**Distribution of LIHTC Projects and Units by Location in DDAs and QCTs**  
**1995-1999**

Year Placed in Service	1995	1996	1997	1998	1999	All Projects 1995-1999
Projects	N=1,250	N=1,217	N=1,220	1,103	1,196	5,986
DDA	14%	13%	21%	20%	14%	16%
QCT	21%	23%	25%	26%	27%	24%
DDA or QCT	31%	32%	39%	41%	38%	36%
Units	N=75,699	N=77,610	N=80,864	81,624	90,065	406,862
DDA	15%	12%	18%	21%	15%	16%
QCT	19%	24%	24%	23%	24%	23%
DDA or QCT	31%	32%	38%	40%	37%	36%

Notes: The dataset used in this analysis includes only geocoded projects. Totals may not sum to 100 percent because of rounding.

It should be noted that not all projects located in a DDA or QCT actually received a higher eligible basis. The data indicate that about one-third of properties located in a DDA and one-fourth of those in a QCT did not receive a higher eligible basis.<sup>28</sup>

Exhibit 4-8 presents information on project characteristics for properties located inside and outside designated areas. As shown, there are only modest differences in project size, average unit size, or the percentage of qualifying units across DDAs, QCTs, and non-designated areas. By contrast, projects in QCTs, and to a lesser extent those in DDAs, are considerably more likely to be rehabilitated than projects in non-designated areas, which are

<sup>26</sup> Because QCT designations are based on decennial census data, the designations are fairly static between decennial censuses. The 1999 QCTs are nearly identical to those in force throughout the 1995 to 1999 period.

<sup>27</sup> Some properties are located in both a DDA and a QCT.

<sup>28</sup> In addition, there are 218 projects which, according to the allocating agency, received a higher basis but which, according to our geocoding, are located in neither a DDA nor a QCT. Most of these projects were located in a DDA at some point, though not in the year they were placed in service.

more likely to be newly constructed. Similarly, projects in QCTs and DDAs are more likely to have a nonprofit sponsor. Non-designated areas have the largest share of properties with RHS Section 515 financing, while DDAs have the largest proportion of tax-exempt bond-financed projects. Finally, use of the 30-percent credit, as an indicator of subsidized financing, is higher in DDAs and non-designated areas than in QCTs.

**Exhibit 4-8**  
**Characteristics of LIHTC Projects by Location in DDAs or QCTs**  
**1995-1999**

	In DDA	In QCT	Not in DDA or QCT	Total
Average Project Size (Units)	69	65	68	68
Average Qualifying Ratio	94%	96%	96%	96%
Average Number of Bedrooms	1.8	2.0	1.9	1.9
Distribution of Units by Size				
0 Bedrooms	5%	8%	3%	4%
1 Bedroom	31%	27%	29%	29%
2 Bedrooms	39%	38%	46%	43%
3 Bedrooms	21%	22%	20%	20%
4+ Bedrooms	3%	5%	3%	3%
Construction Type				
New Construction	52%	42%	72%	64%
Rehab	47%	55%	27%	35%
Both	2%	3%	1%	2%
Nonprofit Sponsor	38%	43%	24%	30%
RHS Sec515	8%	3%	17%	13%
Tax-Exempt Bond Financing	14%	7%	11%	10%
Credit Type				
30 Percent	19%	12%	27%	23%
70 Percent	67%	73%	65%	67%
Both	14%	15%	8%	10%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for bedroom count (15.2%), construction type (1.4%), nonprofit sponsor (11.0%), RHS Section 515 (14.1%), bond financing (11.8%) and credit type (11.0%). Totals may not sum to 100 percent because of rounding. Some properties are located in both a DDA and a QCT.

As noted previously, DDAs are defined as metropolitan areas or non-metropolitan counties in which construction, land, and utility costs are high relative to incomes. While developers have an incentive to place tax credit properties in DDAs because they can claim a higher eligible basis, we can assume that, all other things being equal, the developer would favor a location with low development costs relative to incomes. To test this hypothesis, we examined development costs relative to incomes in the areas where tax credit properties are located, using HUD-defined Fair Market Rents (FMRs) as a proxy for development costs and

the LIHTC maximum income limit (60 percent of area median income) as a measure of income.<sup>29</sup> We first sorted non-DDA metropolitan areas and non-metropolitan counties in the United States by the ratio of FMR to 30 percent of 60 percent of area median income (the maximum LIHTC rent), from lowest to highest. We then created three categories, each with approximately one-third of all renter households not in DDAs: low development cost, moderate development cost, and high development cost. We then did the same using multifamily building permits for 1994 to 1998. Finally, we analyzed the distribution of tax credit projects and units in these three categories.

We found that tax credit projects and units are disproportionately located in favorable development cost areas, that is, metro areas and non-metro counties where development costs are low relative to incomes. As shown in the first panel of Exhibit 4-9, fully 44 percent of tax credit projects and 36 percent of tax credit units are located in low development cost areas, compared with 29 percent of all U.S. renter households. Similarly, only 14 percent of tax credit projects and 17 percent of tax credit units are located in high development cost (non-DDA) areas, compared with 30 percent of all renter households. At the same time, tax credit projects and units are disproportionately located in DDAs (16 percent compared to 11 percent of households nationally), suggesting that the increase in basis that projects receive for being developed in DDAs has an impact on where developers choose to locate tax credit properties. Finally, we looked at the distribution of tax credit projects and units located in QCTs by development cost category. As shown, 32 percent of LIHTC projects and 30 percent of LIHTC units are located in the lowest development cost category, similar to the distribution of all renter households.

The second panel of Exhibit 4-9 presents the same analysis using multifamily building permit data instead of all renter units. Once again, tax credit projects and units are shown to be disproportionately located in low development cost areas.

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<sup>29</sup> We used 1999 2-bedroom FMRs and 60 percent of 1999 area median income.

**Exhibit 4-9**  
**Distribution of LIHTC Units and Projects**  
**by Development Cost Category**

Development Cost Category	Ratio of FMR to Maximum LIHTC Rent	All U.S. Rental Units	LIHTC Projects	LIHTC Units	LIHTC Projects in QCTs	LIHTC Units in QCTs
Low	.667 to .815	29%	44%	36%	32%	30%
Moderate	>.815 to .934	30%	26%	31%	31%	36%
High (non-DDA)	>.934 to 1.235	30%	14%	17%	18%	17%
In DDAs		11%	16%	16%	19%	17%
Total		100%	100%	100%	100%	100%

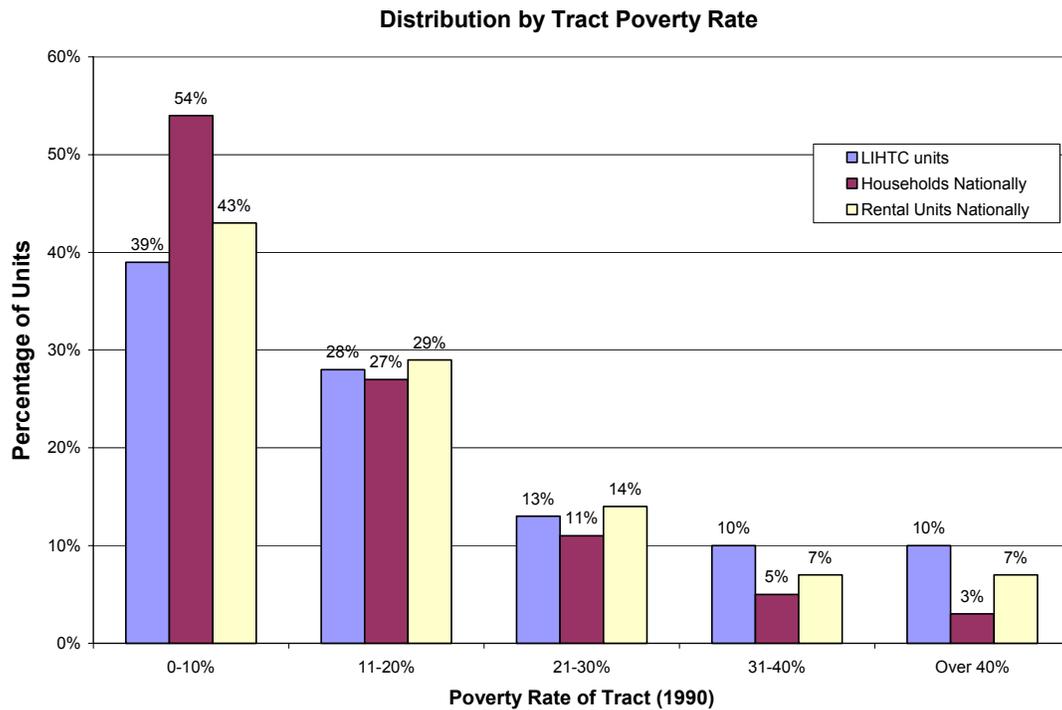
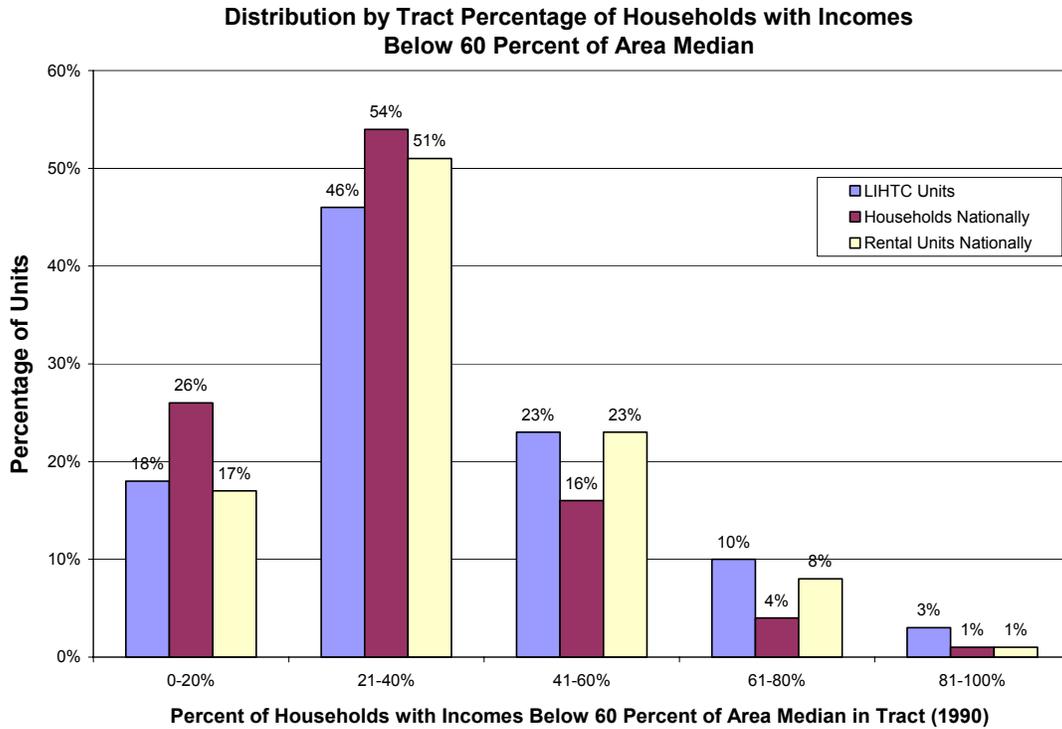
Development Cost Category	Ratio of FMR to Maximum LIHTC Rent	Multifamily Building Permit Units 1994-1998	LIHTC Projects	LIHTC Units	LIHTC Projects in QCTs	LIHTC Units in QCTs
Low	.667 to .813	30%	43%	35%	32%	30%
Moderate	>.813 to .913	29%	24%	27%	28%	31%
High (non-DDA)	>.913 to 1.235	32%	16%	21%	21%	22%
In DDAs		9%	16%	16%	19%	17%
Total		100%	100%	100%	100%	100%

Maximum LIHTC rent equals one-twelfth of 30 percent of 60 percent of area median income (or one-twelfth of 30 percent of 120 percent of the very low income limit). All U.S. Renter Units are from the 2000 Census. Multifamily building permit data are for 1994 through 1998. The percentages for All U.S. Renter Units and Building Permit Units are not exactly equal for each of the three non-DDA development cost categories because MSAs (or non-metro counties) lying on the cutoffs for one-third and two-thirds of units could not be split up.

#### 4.4 Neighborhood Characteristics of LIHTC Properties

This section focuses on the income and demographic characteristics of the census tracts in which LIHTC projects are located. Exhibit 4-10 presents information on the extent to which LIHTC units are located in lower income areas. For comparison, it presents the same information for households nationally and rental units nationally, using 1990 Census data. The first panel of the exhibit uses the LIHTC cutoff (60 percent of area median income) as an indicator of neighborhood income. The exhibit shows the proportion of LIHTC units located in tracts with varying shares of households that meet the income qualification for occupancy in a tax credit unit. As shown, LIHTC units are more likely than households in general or rental units in general to be located in census tracts where more than 60 percent of the households would qualify to live in a tax credit unit.

**Exhibit 4-10**  
**Distribution of LIHTC Units by Census Tract Income Measures**  
**1995-1999**

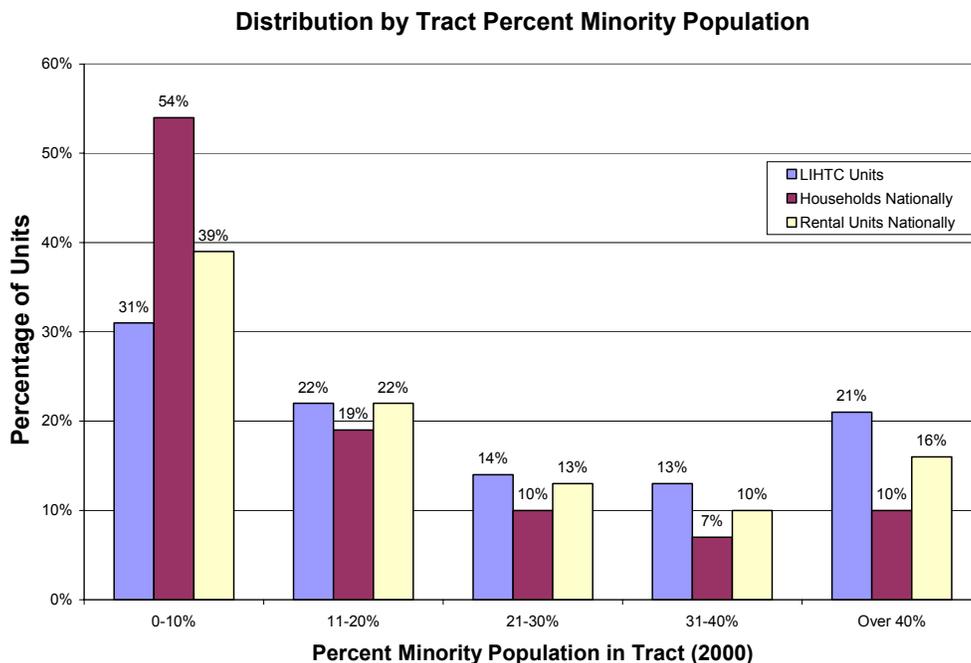


The second panel of Exhibit 4-10 considers the extent to which LIHTC units are located in areas of concentrated poverty, compared to households nationally and rental units nationally. The figures are based on the proportion of persons that had incomes below the poverty threshold in 1990. The measure has been used in recent years to classify low-poverty tracts for programs aimed at increasing economic mobility among assisted families. For example, HUD’s Moving to Opportunity (MTO) program requires families to move to a tract where the poverty rate is no greater than 10 percent.

As shown, tax credit units are more likely than households in general or rental units in general to be located in high poverty areas. Based on the geocoded LIHTC data, 39 percent of the LIHTC units would meet the MTO criterion, compared to 54 percent of households nationally. Further, 80 percent of the units are located in tracts where the poverty rate is 30 percent or less, compared to 92 percent of households nationally. Finally, 10 percent of tax credit units are located in tracts where more than 40 percent of the people are poor (compared to 4 percent of households nationally).

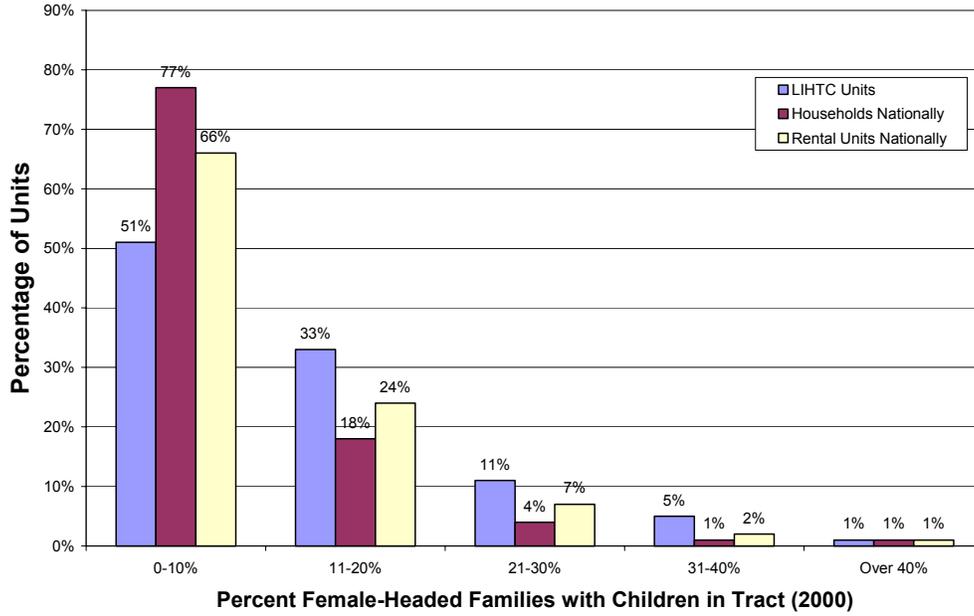
Additional demographic indicators are presented in Exhibit 4-11, with the same information presented for households nationally and rental units nationally using 2000 Census data. As shown, LIHTC units are more likely to be located in largely minority- or renter-occupied tracts or tracts with large proportions of female-headed households, compared to households in general or rental units in general.

**Exhibit 4-11  
Distribution of LIHTC Units by Other Census Tract Characteristics  
1995-1999**



**Exhibit 4-11 (Continued)**  
**Distribution of LIHTC Units by Other Census Tract Characteristics**  
**1995-1999**

**Distribution by Tract Percent Female-Headed Families with Children**



**Distribution by Tract Percent Renter-Occupied Housing Units**

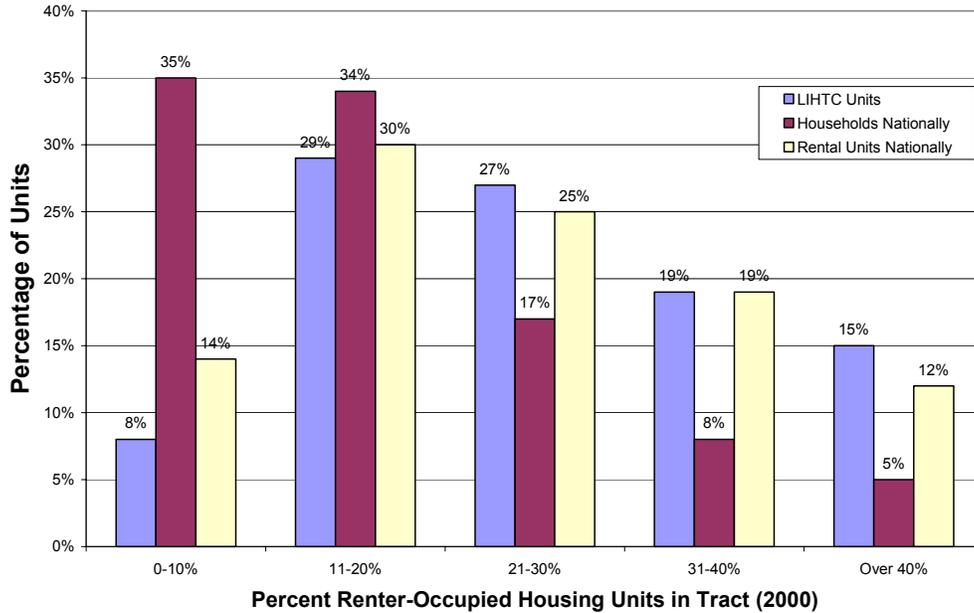


Exhibit 4-12 summarizes census tract information from Exhibits 4-10 and 4-11, showing the proportions of LIHTC units that are located in tracts that have high poverty concentrations, are predominantly minority, have high rates of female-headed families, and are predominantly renter occupied. To provide a better understanding of how neighborhood conditions vary across geographical groupings, the table presents these measures for each of the three types of locations discussed earlier in this section—central cities, suburbs, and non-metro areas.

**Exhibit 4-12**  
**Census Tract Characteristics of LIHTC Units by Location Type**  
**1995-1999**

Census Tract Characteristic	Central City		Suburb		Non-Metro Area		Total	
	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units
Over 30 Percent of People Below Poverty Line	34%	23%	5%	3%	13%	12%	19%	14%
Over 50 Percent Minority Population	59%	45%	27%	21%	14%	10%	40%	30%
Over 20 Percent Female-Headed Families with Children	29%	18%	7%	3%	4%	3%	17%	10%
Over 50 Percent Renter Occupied Units	70%	66%	32%	29%	14%	12%	47%	44%

Notes: The dataset used for this analysis includes only geocoded projects. Suburb is defined here as metro area, non-central city. Information on minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions. Due to lack of data availability, poverty-related tabulations are based on 1990 Census data and tract definitions.

As shown, 34 percent of LIHTC units in central city locations are located in neighborhoods of concentrated poverty (where over 30 percent of the people are in poverty), compared with only 5 percent in the suburbs, 13 percent in non-metro areas, and 19 percent in all areas combined. Overall, LIHTC units are slightly more likely to be located in areas of concentrated poverty than rental units nationally (19 percent of LIHTC units vs. 14 percent all rental units). In particular, over one-third of LIHTC units in central city locations are in high-poverty areas, compared to less than one-fourth of rental units overall.

Minority concentration also varies across location types, with 59 percent of all units in central cities located in neighborhoods with high minority concentrations (over 50 percent), compared with 27 percent in the suburbs and 14 percent in non-metro areas. Again, LIHTC units are more likely to be in areas of high minority concentrations compared to all rental units nationally. This is most notable in central city locations, where 59 percent of LIHTC units are in areas of high minority concentration, while less than half (45 percent) of rental units nationally have the same census tract characteristic.

Not surprisingly, the proportion of units in neighborhoods with a large share of female-headed families was considerably higher for central cities (29 percent) than for suburban (7 percent) and non-metro areas (4 percent). LIHTC units are again more likely than rental units nationally to be in census tracts with high concentrations of female-headed families. Finally, central city LIHTC units were more than twice as likely as suburban and four times as likely as non-metro units to be in predominantly renter-occupied tracts. In central city locations, LIHTC units were more often in census tracts with high renter concentrations (70 percent) than rental units nationally (66 percent).

Exhibit 4-13 shows neighborhood characteristics for LIHTC properties developed in DDAs and QCTs. As expected, projects in QCTs—which are by definition low-income tracts—are located in areas with high rates of poverty, minority populations, female-headed families, and renter-occupied units. By contrast, projects in DDAs are located in areas with comparatively lower rates of poverty, minority populations, female-headed families, and renter-occupied units, although still considerably higher than those areas that are neither QCTs or DDAs. When compared to rental units nationally, LIHTC units are more likely to be in disadvantaged census tracts when they are in a DDA.

**Exhibit 4-13**  
**Census Tract Characteristics of LIHTC Units by DDA or QCT Designation**  
**1995-1999**

Census Tract Characteristic	In DDA		In QCT		Not in DDA or QCT		Total	
	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units	LIHTC Units	All Rental Units
Over 30 Percent of People Below Poverty Line	24%	10%	73%	68%	3%	3%	19%	14%
Over 50 Percent Minority Population	49%	24%	80%	73%	26%	23%	40%	30%
Over 20 Percent Female-Headed Families with Children	18%	5%	45%	42%	8%	4%	17%	10%
Over 50 Percent Renter Occupied Units	63%	42%	85%	85%	32%	36%	47%	44%

Notes: The dataset used for this analysis includes only geocoded projects. Information on minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions. Due to lack of data availability, poverty-related tabulations are based on 1990 Census data and tract definitions.

Exhibit 4-14 presents information on neighborhood characteristics for units in three types of LIHTC projects: those with nonprofit sponsors, those using RHS Section 515 financing, and those financed with tax-exempt bonds. As shown, 28 percent of units in properties with a nonprofit sponsor were located in neighborhoods with high concentrations of poverty, compared with only 13 percent of units with RHS Section 515 loans and 8 percent with bond

financing. Nonprofit units were also the most likely to be in tracts with high proportions of minority residents (46 percent) compared with RHS units (13 percent) and bond-financed units (35 percent). Similarly, nonprofit units were more likely to be in tracts with a high percentage of female-headed families (21 percent), compared with RHS (3 percent) and bond-financed (10 percent) units. Finally, about half of units with non-profit sponsors or tax-exempt bond financing were in predominantly renter-occupied areas, compared to only 5 percent of units with RHS Section 515 loans.

Overall, units in properties developed by nonprofit sponsors are the most likely to be located in areas of high poverty and minority concentration. These data confirm that nonprofits tend to locate their projects in the more difficult neighborhoods.

**Exhibit 4-14**  
**Census Tract Characteristics of LIHTC Units by Project Type**  
**1995-1999**

Census Tract Characteristic	Type of LIHTC Project			All LIHTC Units
	Nonprofit Sponsor	Tax-Exempt Bond Financing	RHS Section 515	
Over 30 Percent of People Below Poverty Line	28%	8%	13%	19%
Over 50 Percent Minority Population	46%	35%	13%	40%
Over 20 Percent Female-Headed Families with Children	21%	10%	3%	17%
Over 50 Percent Renter Occupied Units	53%	52%	5%	47%

Notes: The dataset used in this analysis includes only geocoded projects. The dataset contains missing data for nonprofit sponsor (11.0%), RHS Section 515 (14.1%), and bond financing (11.8%). Information on minority population, female-headed households, and renter-occupied housing units is based on 2000 Census data and tract definitions. Due to lack of data availability, poverty-related tabulations are based on 1990 Census data and tract definitions.

## 4.5 Changes in Location Characteristics Over Time

In this section, we present trends in location characteristics over time. Exhibit 4-15 presents key characteristics for LIHTC units placed in service during the period 1992-1994 and for each year from 1995 through 1999. As shown, there appear to be no consistent trends in the regional distribution of tax credit units. In the West, the share increased each year from 1995 to 1999, from 9 percent to 30 percent, after dropping from 19 percent in the 1992-1994 period. The Midwest showed the opposite pattern, increasing from 27 percent in the 1992-1994 period to 32 percent in 1995, and then dropping fairly steadily to 19 percent in 1999. Shares of units in the Northeast and South fluctuated over time with no distinct shifts.

**Exhibit 4-15**  
**Distribution of LIHTC Units by Location Characteristics Over Time:**  
**1992-1994 Compared to Subsequent Years**

Year Placed in Service	1992-1994	1995	1996	1997	1998	1999
Distribution by Region						
Northeast	13%	15%	12%	17%	14%	13%
Midwest	27%	32%	28%	22%	18%	19%
South	42%	44%	43%	39%	43%	39%
West	19%	9%	17%	22%	26%	30%
Distribution by Location Type						
Central City	54%	48%	48%	48%	43%	43%
Suburb	26%	37%	39%	38%	43%	45%
Non-metro	20%	16%	13%	15%	13%	12%
Distribution by Location in DDA or QCT						
DDA	16%	15%	12%	18%	21%	15%
QCT	27%	19%	24%	24%	23%	24%
DDA or QCT	37%	31%	32%	38%	40%	37%
Distribution by Census Tract Characteristics						
>30% Poor Households*	21%	18%	19%	20%	20%	20%
>50% Minority Population	40%	38%	36%	42%	45%	40%
>50% Renter Occupied	44%	47%	48%	48%	45%	46%

\*Defined as below the poverty line

Notes: The data set used in this analysis includes only geocoded projects, except the analysis of distribution by region, which used the full data set excluding Puerto Rico and the Virgin Islands. Suburb is defined here as metro area, non-central city. Minority population and renter-occupied units are based on 2000 Census data and tract definitions. Due to lack of data availability, poverty-related tabulations are based on 1990 Census data and tract definitions.

There does appear to be a marked trend toward the development of more tax credit units in the suburbs and fewer in central cities and non-metro areas. From 1992 to 1999, the percentage of tax credit units developed in suburban areas rose from 26 percent to 45 percent, while the share in central city locations dropped from 54 percent to 43 percent, and in non-metro areas from 20 percent to 12 percent. There is no consistent pattern of change in distribution of LIHTC units by location in a Difficult Development Area or Qualified Census Tract from 1992 through 1999.

In terms of census tract characteristics, the data show no clear trends in the percentage of LIHTC units developed in census tracts with high rates of poverty, minority population, or renter-occupied units.

## Chapter Five

### Conclusion

Tax credit production averaged roughly 1,300 projects and 86,000 units annually between 1995 and 1999. While the number of projects placed into service each year has remained fairly stable over the years, the number of units has grown steadily from roughly 56,000 units produced annually in the 1992 through 1994 period to over 100,000 units in 1999. This increase reflects a boost in the size of the average LIHTC project from 42 units in the earlier study period to 73 units for properties placed in service in 1999. The larger properties, in turn, are a function of the dramatic increase in LIHTC projects with tax-exempt bond financing and a similarly dramatic decrease in LIHTC projects with Rural Housing Service Section 515 loans during the same period. Bond-financed tax credit properties are more than twice as large as the average tax credit property, and LIHTC properties with Section 515 loans more than twice as small.

On average, tax credit projects are larger and have larger units than apartments in general. Well over one-third of LIHTC properties have more than 50 units, compared to only 2 percent of all apartment properties nationally. Similarly, more than three-quarters of LIHTC units are in properties with more than 50 units, compared with less than half of apartment units in general. In addition, nearly one-fourth of tax credit units have three or more bedrooms, compared to only 11 percent of apartments nationally.

Overall, nearly two-thirds of LIHTC projects placed into service from 1995 through 1999 were newly constructed (although less than one-third in the Northeast were new construction). About one-third of the projects had a nonprofit sponsor, with a significant increase in nonprofit sponsorship over the study period. Over the years, the number of LIHTC projects with Rural Housing Service Section 515 loans has declined.

The South accounts for the largest share of tax credit units in the United States followed by the Midwest, West, and Northeast. The South also boasts larger-than-average LIHTC properties (along with the West) as well as the largest proportion of properties with RHS Section 515. The Northeast earns the distinction of having the highest proportion of nonprofit-sponsored LIHTC projects as well as the highest share of properties that were rehabilitated rather than newly constructed. Nearly half (46 percent) of LIHTC units placed into service during the study period are located in central cities and 41 percent in metro area suburbs, similar to the distribution of occupied rental housing units overall. Over time, the shares of LIHTC projects in central cities have dropped while the proportion in suburban locations has increased. Compared to rental housing in general, tax credit projects and units are disproportionately located in Difficult Development Areas (areas with high development costs relative to incomes which qualify the project to claim an increased basis) and in areas with relatively low development costs.

## **Appendix A**

### **Characteristics and Locations of LIHTC Units by State**

**Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-1999**

State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
<b>Northeast:</b>							
CT	77	4,791	62	1.8	19%	81%	0%
MA	108	9,797	91	1.7	20%	80%	1%
ME	40	1,764	44	1.7	25%	72%	2%
NH	49	2,454	50	2.0	44%	50%	6%
NJ	77	4,318	56	1.7	51%	45%	4%
NY	426	24,325	57	1.7	48%	51%	1%
PA	274	9,750	36	1.7	45%	48%	1%
RI	34	1,663	49	1.8	10%	87%	4%
VT	55	1,431	26	1.7	41%	58%	1%
<i>Total</i>	<i>1,140</i>	<i>60,293</i>	<i>53</i>	<i>1.7</i>	<i>39%</i>	<i>59%</i>	<i>2%</i>
<b>Midwest:</b>							
IA	133	5,564	42	1.9	87%	13%	1%
IL	223	16,856	76	1.5	54%	46%	0%
IN	164	10,809	66	1.8	65%	33%	2%
KS	103	5,938	58	1.9	61%	34%	5%
MI	202	14,413	71	1.9	80%	17%	3%
MN	165	6,582	40	2.3	62%	38%	0%
MO	286	11,469	40	2.1	53%	47%	0%
ND	45	1,373	31	2.0	74%	26%	0%
NE	77	2,247	29	2.3	81%	19%	0%
OH	243	16,916	70	2.2	67%	28%	5%
SD	42	1,355	32	1.9	86%	14%	0%
WI	203	8,282	41	2.5	73%	27%	0%
<i>Total</i>	<i>1,186</i>	<i>101,804</i>	<i>54</i>	<i>2.1</i>	<i>67%</i>	<i>32%</i>	<i>2%</i>

**Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-1999**

State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
<b>South:</b>							
AL	115	5,199	45	2.0	84%	15%	1%
AR	75	3,101	41	1.7	83%	17%	0%
D.C.	9	1,517	169	2.0	0%	92%	8%
DE	28	1,401	50	1.9	75%	25%	0%
FL	138	27,081	196	2.3	91%	8%	1%
GA	187	16,383	88	2.0	58%	39%	2%
KY	164	4,840	30	2.0	71%	29%	0%
LA	138	8,383	61	1.9	55%	28%	16%
MD	121	10,786	89	1.6	42%	58%	0%
MS	120	5,000	42	2.3	53%	46%	1%
NC	385	12,002	31	2.2	65%	33%	2%
OK	87	5,544	64	1.7	42%	58%	0%
SC	69	3,989	58	2.2	72%	26%	2%
TN	93	8,859	95	2.1	60%	40%	0%
TX	311	38,505	124	2.0	63%	37%	0%
VA	215	21,485	100	1.8	61%	38%	1%
WV	58	2,326	40	2.0	67%	30%	3%
<i>Total</i>	<i>2,313</i>	<i>176,401</i>	<i>76</i>	<i>2.0</i>	<i>66%</i>	<i>33%</i>	<i>2%</i>
<b>West:</b>							
AK	23	867	38	1.8	81%	19%	0%
AZ	66	5,311	80	2.1	88%	12%	0%
CA	418	38,960	93	1.4	54%	46%	0%
CO	107	7,119	67	1.9	82%	18%	0%
HI	10	1,009	101	1.6	100%	0%	0%

**Exhibit A1: Physical Characteristics of LIHTC Units by State, 1995-1999**

State	Total Number of Projects	Total Number of Units	Average Project Size (in Units)	Average Number of Bedrooms (per Unit)	Construction Type		
					New	Rehab	Both
<b>West:</b>							
ID	41	1,967	48	2.2	99%	0%	1%
MT	43	1,336	31	1.8	83%	17%	0%
NM	41	3,044	74	1.9	93%	7%	0%
NV	39	4,342	111	2.1	100%	0%	0%
OR	130	8,799	68	1.8	74%	26%	0%
UT	53	2,635	50	2.4	95%	5%	0%
WA	199	15,062	76	1.9	62%	38%	0%
WY	19	860	45	2.0	N/A	N/A	N/A
<i>Total</i>	<i>1,189</i>	<i>91,311</i>	<i>77</i>	<i>1.9</i>	<i>68%</i>	<i>32%</i>	<i>0%</i>
<b>U.S. Possessions:</b>							
PR	36	1,800	50	2.2	68%	32%	0%
VI	7	189	27	1.7	42%	58%	0%
<i>Total</i>	<i>43</i>	<i>1,989</i>	<i>46</i>	<i>2.1</i>	<i>65%</i>	<i>35%</i>	<i>0%</i>
<b>U.S. Total</b>	<b>6,571</b>	<b>431,798</b>	<b>66</b>	<b>2.0</b>	<b>63%</b>	<b>36%</b>	<b>1%</b>

Notes: Nationally, the database contains missing data for bedroom count (14.9%) and construction type (1.6%). Totals may not sum to 100 percent because of rounding.

**Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-1999**

State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
<b>Northeast:</b>							
CT	37%	1%	42%	95.8%	43%	55%	1%
MA	32%	2%	25%	83.6%	20%	26%	54%
ME	25%	7%	20%	96.3%	16%	49%	35%
NH	14%	8%	44%	92.4%	33%	41%	27%
NJ	51%	0%	21%	98.7%	14%	84%	3%
NY	30%	2%	50%	84.3%	35%	48%	17%
PA	37%	12%	2%	97.7%	21%	60%	19%
RI	30%	4%	14%	98.4%	5%	40%	55%
VT	66%	7%	22%	85.7%	24%	48%	29%
<i>Total</i>	<i>34%</i>	<i>4%</i>	<i>30%</i>	<i>90.5%</i>	<i>26%</i>	<i>49%</i>	<i>24%</i>
<b>Midwest:</b>							
IA	12%	6%	6%	99.0%	15%	82%	3%
IL	38%	0%	15%	97.2%	19%	81%	0%
IN	20%	11%	24%	96.1%	33%	62%	4%
KS	12%	5%	17%	95.8%	22%	66%	12%
MI	8%	8%	16%	93.8%	24%	66%	10%
MN	21%	4%	27%	92.3%	31%	52%	17%
MO	21%	7%	12%	98.3%	20%	73%	7%
ND	17%	10%	16%	97.6%	23%	70%	6%
NE	41%	5%	63%	92.2%	40%	57%	3%
OH	57%	6%	18%	98.4%	25%	50%	25%
SD	25%	18%	3%	99.7%	31%	67%	2%
WI	13%	5%	11%	92.5%	30%	70%	0%
<i>Total</i>	<i>26%</i>	<i>7%</i>	<i>16%</i>	<i>96.0%</i>	<i>25%</i>	<i>66%</i>	<i>9%</i>
<b>South:</b>							
AL	22%	14%	1%	100%	6%	82%	12%
AR	12%	33%	23%	93.2%	48%	44%	9%
D.C.	19%	0%	8%	99.5%	8%	92%	0%

**Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-1999**

State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
<b>South:</b>							
DE	7%	12%	9%	100%	21%	79%	0%
FL	9%	0%	55%	95.0%	53%	42%	5%
GA	22%	9%	12%	93.1%	23%	73%	4%
KY	29%	19%	0%	99.0%	32%	68%	0%
LA	50%	12%	0%	98.6%	12%	62%	25%
MD	19%	6%	38%	97.2%	26%	56%	18%
MS	12%	16%	21%	98.3%	34%	42%	24%
NC	23%	8%	13%	99.5%	21%	66%	13%
OK	37%	39%	0%	98.2%	19%	61%	20%
SC	38%	13%	0%	97.7%	13%	73%	14%
TN	11%	4%	18%	99.1%	21%	72%	7%
TX	21%	7%	4%	95.4%	10%	76%	13%
VA	23%	7%	44%	97.9%	49%	43%	9%
WV	20%	43%	0%	100%	26%	55%	19%
<i>Total</i>	<i>21%</i>	<i>9%</i>	<i>21%</i>	<i>97.5%</i>	<i>27%</i>	<i>61%</i>	<i>11%</i>
<b>West:</b>							
AK	49%	11%	32%	92.6%	26%	70%	4%
AZ	16%	4%	15%	97.1%	12%	80%	8%
CA	51%	N/A	33%	95.6%	33%	67%	0%
CO	27%	2%	50%	83.4%	52%	45%	3%
HI	81%	3%	0%	100%	6%	94%	0%
ID	36%	6%	8%	91.5%	7%	93%	0%
MT	3%	15%	22%	94.7%	46%	54%	0%
NM	12%	11%	33%	99.3%	45%	55%	0%
NV	26%	12%	74%	98.5%	38%	62%	0%
OR	47%	2%	52%	97.6%	53%	45%	2%

**Exhibit A2: Development Characteristics of LIHTC Units by State, 1995-1999**

State	Non-Profit Sponsor	RHS Section 515	Tax-Exempt Bonds	Average Ratio of LIHTC Units/ Total Units	Credit Type		
					30%	70%	Both
<b>West:</b>							
UT	4%	5%	41%	91.0%	21%	74%	5%
WA	29%	3%	40%	97.2%	52%	44%	4%
WY	0%	0%	0%	100%	N/A	N/A	N/A
<i>Total</i>	<i>35%</i>	<i>4%</i>	<i>39%</i>	<i>94.9%</i>	<i>40%</i>	<i>57%</i>	<i>3%</i>
<b>U.S. Possessions:</b>							
PR	0%	100%	0%	100%	68%	0%	32%
VI	0%	100%	0%	100%	100%	0%	0%
<i>Total</i>	<i>0%</i>	<i>100%</i>	<i>0%</i>	<i>100%</i>	<i>71%</i>	<i>0%</i>	<i>29%</i>
<b>U.S. Total</b>	<b>27%</b>	<b>8%</b>	<b>24%</b>	<b>95%</b>	<b>29%</b>	<b>60%</b>	<b>11%</b>

Notes: The database contains missing data for nonprofit sponsor (10.8%), RHS Section 515 (14.3%), bond financing (12.0%), and credit type (10.9%). Totals may not sum to 100 percent because of rounding.

**Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-1999**

State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>Northeast:</b>								
CT	75%	46%	23%	50%	2%	4%	4,765	422,920
MA	71%	48%	26%	49%	3%	3%	9,764	915,577
ME	38%	26%	34%	19%	29%	55%	1,368	137,384
NH	56%	34%	24%	29%	20%	37%	2,449	130,771
NJ	29%	20%	71%	80%	0%	0%	3,810	981,065
NY	78%	73%	20%	22%	2%	5%	22,884	3,173,045
PA	44%	35%	46%	53%	10%	12%	9,259	1,319,273
RI	60%	48%	32%	44%	8%	8%	1,663	153,148
VT	17%	13%	31%	17%	53%	69%	1,135	65,282
<i>Total</i>	<i>64%</i>	<i>52%</i>	<i>30%</i>	<i>41%</i>	<i>6%</i>	<i>8%</i>	<i>57,097</i>	<i>7,298,465</i>
<b>Midwest:</b>								
IA	43%	34%	19%	13%	37%	53%	5,488	318,954
IL	67%	54%	23%	33%	9%	13%	13,672	1,503,119
IN	52%	47%	33%	30%	15%	23%	10,375	614,456
KS	53%	39%	14%	19%	34%	43%	5,736	302,966
MI	29%	38%	60%	49%	10%	14%	14,394	991,859
MN	9%	36%	63%	39%	28%	25%	6,033	464,115
MO	53%	38%	25%	34%	22%	28%	11,103	612,473
ND	51%	39%	11%	11%	38%	50%	1,174	82,926
NE	50%	44%	26%	11%	24%	45%	1,800	201,947
OH	48%	45%	34%	41%	18%	14%	16,585	1,329,415
SD	63%	29%	5%	6%	32%	65%	1,163	87,886
WI	32%	49%	43%	27%	25%	25%	8,089	606,794
<i>Total</i>	<i>45%</i>	<i>44%</i>	<i>35%</i>	<i>34%</i>	<i>19%</i>	<i>22%</i>	<i>95,612</i>	<i>7,116,912</i>

**Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-1999**

State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>South:</b>								
AL	29%	43%	32%	32%	38%	25%	4,844	444,642
AR	42%	38%	34%	14%	24%	47%	2,758	271,102
D.C.	100%	100%	0%	0%	0%	0%	1,517	152,549
DE	12%	29%	53%	59%	35%	13%	1,241	73,623
FL	22%	35%	75%	60%	3%	5%	26,339	1,681,847
GA	38%	24%	45%	49%	17%	27%	15,455	829,786
KY	37%	27%	27%	28%	36%	44%	4,087	419,274
LA	41%	46%	31%	35%	28%	19%	7,898	511,257
MD	24%	28%	69%	66%	7%	6%	10,618	611,684
MS	25%	23%	30%	16%	45%	61%	3,906	259,762
NC	60%	42%	21%	30%	18%	28%	10,509	805,144
OK	58%	46%	23%	19%	19%	35%	4,508	384,836
SC	9%	27%	55%	48%	36%	25%	3,961	379,220
TN	60%	53%	26%	22%	14%	25%	8,658	592,677
TX	60%	62%	33%	26%	7%	12%	38,205	2,375,753
VA	38%	42%	54%	40%	8%	18%	21,422	772,186
WV	6%	20%	56%	27%	37%	54%	1,772	178,499
<b>Total</b>	<b>42%</b>	<b>43%</b>	<b>45%</b>	<b>42%</b>	<b>14%</b>	<b>20%</b>	<b>167,698</b>	<b>10,743,941</b>
<b>West:</b>								
AK	68%	47%	0%	0%	32%	53%	732	82,915
AZ	48%	68%	38%	22%	14%	9%	4,941	489,843
CA	46%	49%	51%	49%	3%	3%	37,028	4,606,307
CO	39%	49%	47%	38%	14%	13%	6,705	483,882
HI	51%	43%	23%	34%	25%	22%	903	164,373

**Exhibit A3: Distribution of LIHTC Units by Central City/Suburb/Non-Metro Location by State, 1995-1999**

State	Central City		Suburb		Non-Metro		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>West:</b>								
ID	20%	27%	8%	11%	72%	62%	1,959	108,036
MT	49%	30%	5%	9%	47%	62%	1,127	100,225
NM	30%	48%	39%	13%	30%	38%	2,876	176,796
NV	28%	40%	68%	49%	5%	11%	4,256	210,807
OR	41%	39%	37%	36%	22%	25%	8,208	407,356
UT	25%	39%	50%	43%	24%	18%	2,395	171,263
WA	38%	40%	49%	45%	13%	15%	14,526	700,717
WY	60%	26%	10%	6%	30%	68%	799	54,294
<i>Total</i>	<i>42%</i>	<i>47%</i>	<i>46%</i>	<i>42%</i>	<i>13%</i>	<i>10%</i>	<i>86,455</i>	<i>7,756,814</i>
<b>U.S. Total</b>	<b>46%</b>	<b>46%</b>	<b>41%</b>	<b>38%</b>	<b>14%</b>	<b>15%</b>	<b>406,862</b>	<b>32,916,032</b>

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). Suburb is defined here as metro area, non-central city. Total number of rental units are based on 1990 Census data and tract definitions. Totals may not sum to 100 percent because of rounding

**Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-1999**

State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b><i>Northeast:</i></b>								
CT	41%	16%	60%	20%	82%	35%	4,765	422,920
MA	54%	98%	43%	18%	77%	98%	9,764	915,577
ME	98%	91%	9%	6%	98%	91%	1,368	137,384
NH	100%	97%	3%	6%	100%	97%	2,449	130,771
NJ	20%	28%	32%	18%	53%	43%	3,810	981,065
NY	68%	12%	33%	21%	76%	32%	22,884	3,173,045
PA	3%	3%	37%	17%	40%	20%	9,259	1,319,273
RI	40%	100%	45%	20%	72%	100%	1,663	153,148
VT	55%	84%	17%	8%	65%	86%	1,135	65,282
<i>Total</i>	<i>51%</i>	<i>29%</i>	<i>36%</i>	<i>19%</i>	<i>70%</i>	<i>44%</i>	<i>57,097</i>	<i>7,298,465</i>
<b><i>Midwest:</i></b>								
IA	0%	0%	6%	11%	6%	11%	5,488	318,954
IL	0%	0%	44%	23%	44%	23%	13,672	1,503,119
IN	0%	0%	15%	14%	15%	14%	10,375	614,456
KS	0%	0%	21%	11%	21%	11%	5,736	302,966
MI	0%	0%	25%	26%	25%	26%	14,394	991,859
MN	0%	0%	7%	15%	7%	15%	6,033	464,115
MO	0%	0%	21%	17%	21%	17%	11,103	612,473
ND	0%	0%	3%	8%	3%	8%	1,174	82,926
NE	0%	0%	6%	13%	6%	13%	1,800	201,947
OH	0%	0%	27%	21%	27%	21%	16,585	1,329,415
SD	2%	7%	0%	7%	2%	14%	1,163	87,886
WI	0%	0%	11%	15%	11%	15%	8,089	606,794
<i>Total</i>	<i>0%</i>	<i>&lt;1%</i>	<i>22%</i>	<i>19%</i>	<i>22%</i>	<i>19%</i>	<i>95,612</i>	<i>7,116,912</i>
<b><i>South:</i></b>								
AL	1%	0%	12%	20%	13%	20%	4,844	444,642
AR	3%	2%	9%	10%	12%	12%	2,758	271,102

**Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-1999**

State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>South:</b>								
D.C.	0%	0%	98%	50%	98%	50%	1,517	152,549
DE	36%	13%	1%	7%	36%	19%	1,241	73,623
FL	49%	20%	12%	14%	54%	32%	26,339	1,681,847
GA	1%	<1%	29%	16%	31%	16%	15,455	829,786
KY	6%	3%	32%	16%	39%	19%	4,087	419,274
LA	10%	4%	26%	22%	34%	26%	7,898	511,257
MD	1%	0%	14%	15%	15%	15%	10,618	611,684
MS	16%	7%	36%	19%	45%	23%	3,906	259,762
NC	0%	4%	13%	10%	13%	14%	10,509	805,144
OK	0%	0%	16%	11%	16%	11%	4,508	384,836
SC	6%	5%	17%	13%	23%	18%	3,961	379,220
TN	1%	0%	25%	17%	25%	17%	8,658	592,677
TX	5%	7%	36%	16%	39%	22%	38,205	2,375,753
VA	0%	<1%	7%	11%	7%	11%	21,422	772,186
WV	3%	22%	34%	11%	36%	33%	1,772	178,499
<i>Total</i>	<i>11%</i>	<i>6%</i>	<i>22%</i>	<i>15%</i>	<i>31%</i>	<i>21%</i>	<i>167,698</i>	<i>10,743,841</i>
<b>West:</b>								
AK	30%	38%	29%	12%	53%	46%	732	82,915
AZ	22%	12%	30%	13%	49%	23%	4,941	489,843
CA	31%	11%	21%	17%	44%	27%	37,028	4,606,307
CO	7%	3%	15%	15%	21%	19%	6,705	483,882
HI	100%	100%	17%	17%	100%	100%	903	164,373
ID	17%	9%	15%	8%	21%	17%	1,959	108,036
MT	27%	8%	17%	11%	38%	18%	1,127	100,225

**Exhibit A4: Distribution of LIHTC Units Located in DDAs and QCTs by State, 1995-1999**

State	DDA		QCT		DDA or QCT		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>West:</b>								
NM	7%	17%	4%	12%	11%	28%	2,876	176,796
NV	2%	2%	10%	11%	12%	12%	4,256	210,807
OR	27%	40%	15%	8%	42%	46%	8,208	407,356
UT	11%	4%	7%	15%	18%	18%	2,395	171,263
WA	15%	17%	20%	13%	33%	28%	14,526	700,717
WY	0%	0%	0%	9%	0%	9%	799	54,294
<i>Total</i>	<i>23%</i>	<i>14%</i>	<i>18%</i>	<i>15%</i>	<i>37%</i>	<i>28%</i>	<i>406,862</i>	<i>7,756,814</i>
<b>U.S. Total</b>	<b>16%</b>	<b>12%</b>	<b>23%</b>	<b>17%</b>	<b>36%</b>	<b>27%</b>	<b>406,862</b>	<b>32,916,032</b>

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). QCT definitions and total number of rental units are based on 1990 Census data and tract definitions. Totals may not sum to 100 percent because of rounding.

**Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Households Below 60% Median Income		Over 30% Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b><i>Northeast:</i></b>						
CT	47%	36%	12%	7%	4,765	422,920
MA	50%	37%	32%	9%	9,764	915,577
ME	32%	33%	0%	5%	1,368	137,384
NH	29%	30%	2%	1%	2,449	130,771
NJ	39%	36%	21%	8%	3,810	981,065
NY	44%	39%	39%	19%	22,884	3,173,045
PA	44%	35%	31%	12%	9,213	1,319,273
RI	48%	38%	31%	10%	1,663	153,148
VT	35%	32%	16%	5%	1,135	65,282
<i>Total</i>	<i>44%</i>	<i>37%</i>	<i>30%</i>	<i>13%</i>	<i>57,097</i>	<i>7,298,465</i>
<b><i>Midwest:</i></b>						
IA	30%	33%	6%	10%	5,488	318,954
IL	48%	38%	38%	16%	13,672	1,503,119
IN	34%	34%	12%	10%	10,375	614,456
KS	31%	32%	6%	7%	5,736	302,966
MI	36%	38%	20%	23%	14,394	991,859
MN	31%	35%	8%	12%	6,033	464,115
MO	41%	35%	25%	15%	11,103	612,473
ND	24%	33%	0%	6%	1,174	82,926
NE	33%	33%	4%	9%	1,800	201,947
OH	37%	37%	28%	18%	16,585	1,329,415
SD	29%	34%	0%	10%	1,163	87,886
WI	32%	35%	9%	13%	8,089	606,794
<i>Total</i>	<i>37%</i>	<i>36%</i>	<i>20%</i>	<i>15%</i>	<i>95,612</i>	<i>7,116,912</i>

**Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Households Below 60% Median Income		Over 30% Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>South:</b>						
AL	34%	38%	14%	22%	4,844	444,642
AR	32%	34%	17%	19%	2,758	271,102
D.C.	64%	48%	61%	19%	1,517	152,549
DE	29%	30%	1%	4%	1,241	73,623
FL	30%	33%	12%	12%	26,339	1,681,847
GA	43%	34%	22%	15%	15,455	829,786
KY	43%	36%	37%	22%	4,087	419,274
LA	38%	38%	45%	36%	7,898	511,257
MD	34%	33%	12%	9%	10,618	611,684
MS	41%	38%	52%	39%	3,906	259,762
NC	33%	33%	94%	9%	10,509	805,144
OK	38%	34%	17%	14%	4,508	384,836
SC	36%	33%	15%	13%	3,961	379,220
TN	35%	35%	22%	16%	8,658	592,677
TX	40%	34%	31%	19%	38,205	2,375,753
VA	28%	31%	2%	8%	21,422	772,186
WV	41%	37%	1%	16%	1,772	178,499
<i>Total</i>	<i>36%</i>	<i>34%</i>	<i>20%</i>	<i>16%</i>	<i>167,698</i>	<i>10,743,841</i>
<b>West:</b>						
AK	35%	32%	0%	2%	732	82,915
AZ	42%	34%	32%	14%	4,941	489,843
CA	36%	36%	11%	10%	37,028	4,606,307
CO	32%	35%	9%	11%	6,705	483,882
HI	51%	36%	17%	2%	903	164,373
ID	34%	32%	7%	5%	1,959	108,036

**Exhibit A5: Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Households Below 60% Median Income		Over 30% Households In Poverty		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>West:</b>						
MT	31%	35%	17%	13%	1127	100,225
NM	61%	33%	9%	22%	2,876	176,796
NV	36%	32%	7%	4%	4,256	210,807
OR	35%	32%	12%	6%	8,208	407,356
UT	32%	34%	2%	11%	2,395	171,263
WA	37%	33%	12%	7%	14,526	700,717
WY	23%	32%	0%	7%	799	54,294
<i>Total</i>	36%	35%	12%	10%	86,455	7,756,814
<b>U.S. Total</b>	<b>37%</b>	<b>35%</b>	<b>19%</b>	<b>14%</b>	<b>406,862</b>	<b>32,916,032</b>

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). The dataset contains missing data for percent minority (1.3%), percent female-headed families (1.3%) and percent renter-occupied (1.3%). There were no missing data for the poverty characteristic (N=406,862). Data are based on 1990 Census data and tract definitions.

**Exhibit A6: Additional Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b><i>Northeast:</i></b>								
CT	76%	29%	23%	17%	79%	51%	4,765	431,941
MA	56%	16%	32%	8%	72%	58%	9,764	935,528
ME	0%	0%	0%	1%	36%	25%	1,368	147,295
NH	0%	0%	0%	0%	55%	37%	2,449	143,906
NJ	49%	45%	24%	12%	53%	58%	3,810	1,053,172
NY	52%	46%	34%	23%	82%	71%	22,884	3,317,694
PA	32%	16%	26%	9%	43%	28%	9,213	1,370,666
RI	29%	19%	19%	12%	66%	54%	1,663	163,268
VT	0%	0%	0%	0%	28%	28%	1,135	70,850
<i>Total</i>	<i>46%</i>	<i>33%</i>	<i>27%</i>	<i>15%</i>	<i>68%</i>	<i>57%</i>	<i>57,097</i>	<i>7,634,320</i>
<b><i>Midwest:</i></b>								
IA	3%	3%	1%	<1%	16%	17%	5,488	317,857
IL	48%	37%	27%	13%	60%	45%	13,672	1,502,895
IN	27%	13%	19%	7%	31%	27%	10,375	667,144
KS	15%	9%	6%	2%	41%	27%	5,736	319,188
MI	24%	25%	15%	15%	33%	31%	14,394	992,537
MN	3%	8%	0%	3%	16%	30%	6,033	482,262
MO	42%	15%	30%	10%	33%	29%	11,103	652,445
ND	0%	3%	0%	2%	13%	32%	1,174	85,853
NE	4%	6%	4%	4%	17%	29%	1,800	216,867
OH	29%	17%	22%	11%	35%	34%	16,585	1,373,251
SD	0%	7%	0%	5%	18%	25%	1,163	92,305
WI	9%	13%	5%	7%	27%	33%	8,089	658,183
<i>Total</i>	<i>25%</i>	<i>19%</i>	<i>16%</i>	<i>10%</i>	<i>34%</i>	<i>33%</i>	<i>95,612</i>	<i>7,360,787</i>

**Exhibit A6: Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>South:</b>								
AL	28%	29%	17%	14%	12%	27%	4,844	478,375
AR	19%	17%	11%	8%	16%	20%	2,758	319,161
D.C.	100%	67%	90%	28%	100%	82%	1,517	147,124
DE	1%	14%	0%	8%	10%	27%	1,241	82,698
FL	46%	33%	20%	8%	53%	37%	26,339	1,896,130
GA	70%	41%	36%	14%	61%	43%	15,455	977,215
KY	24%	7%	21%	5%	35%	25%	4,087	465,250
LA	49%	38%	30%	21%	35%	36%	7,898	530,918
MD	45%	42%	18%	17%	59%	47%	10,618	639,108
MS	51%	37%	41%	22%	29%	22%	3,906	289,467
NC	46%	26%	17%	7%	36%	30%	10,509	959,658
OK	18%	10%	7%	3%	42%	29%	4,508	424,034
SC	25%	28%	9%	9%	17%	25%	3,961	426,237
TN	28%	21%	24%	12%	49%	31%	8,658	671,542
TX	3%	47%	17%	4%	58%	46%	38,205	2,676,395
VA	30%	26%	8%	8%	35%	40%	21,422	861,234
WV	0%	0%	0%	0%	9%	14%	1,772	182,782
<i>Total</i>	<i>46%</i>	<i>33%</i>	<i>20%</i>	<i>9%</i>	<i>47%</i>	<i>37%</i>	<i>167,698</i>	<i>12,027,328</i>
<b>West:</b>								
AK	21%	16%	0%	2%	65%	44%	732	83,091
AZ	61%	28%	9%	3%	42%	42%	4,941	607,771
CA	64%	53%	6%	5%	57%	56%	37,028	4,956,536
CO	17%	16%	0%	1%	39%	40%	6,705	542,101
HI	100%	87%	0%	1%	97%	53%	903	175,352
ID	4%	1%	0%	<1%	23%	21%	1,959	129,685

**Exhibit A6: Census Tract Characteristics of LIHTC Units by Location Type, 1995-1999**

State	Over 50% Population Is Minority		Over 20% Families Are Female-Headed		Over 50% Housing Is Renter-Occupied		Total Number of Units	
	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units	LIHTC units	All rental units
<b>West:</b>								
MT	0%	4%	0%	2%	24%	27%	1127	110,944
NM	66%	51%	0%	2%	5%	26%	2,876	203,526
NV	44%	25%	22%	2%	43%	57%	4,256	293,918
OR	6%	2%	0%	<1%	43%	35%	8,208	476,772
UT	0%	5%	0%	0%	13%	37%	2,395	199,734
WA	9%	8%	0%	1%	54%	42%	14,526	804,389
WY	0%	1%	0%	1%	0%	15%	799	58,094
<i>Total</i>	<i>40%</i>	<i>38%</i>	<i>4%</i>	<i>3%</i>	<i>48%</i>	<i>50%</i>	<i>86,455</i>	<i>8,641,913</i>
<b>U.S. Total</b>	<b>40%</b>	<b>32%</b>	<b>17%</b>	<b>9%</b>	<b>47%</b>	<b>43%</b>	<b>406,862</b>	<b>36,005,904</b>

Notes: The dataset used in this analysis includes only geocoded projects (projects and units in Puerto Rico and the Virgin Islands were excluded). The dataset contains missing data for percent minority (1.3%), percent female-headed families (1.3%) and percent renter-occupied (1.3%). There were no missing data for the poverty characteristic (N=406,862). Data are based on 2000 Census data and tract definitions.

## **Appendix B**

### **LIHTC Data Collection Form**

## LIHTC DATA FORM

State: \_\_\_\_\_ State Identifying Number: \_\_\_\_\_

Allocating Agency Name: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Street Address: \_\_\_\_\_  
(NUMBER) (STREET)

Owner/Owner's Representative: \_\_\_\_\_  
(CITY) (STATE) (ZIP)

\_\_\_\_\_  
(FIRST NAME LAST NAME)

\_\_\_\_\_  
(COMPANY NAME)

\_\_\_\_\_  
(NUMBER) (STREET)

\_\_\_\_\_  
(CITY) (STATE) (ZIP)

\_\_\_\_\_  
(AREA CODE AND TELEPHONE NUMBER)

Number of *Total* Units: \_\_\_\_\_

Number of Total Units *by Size*: \_\_\_\_\_ = \_\_\_\_\_  
OBR 1BR 2BR 3BR 4+BR Total

Number of *Low-Income* Units: \_\_\_\_\_

Year Place In Service: 19\_\_\_\_\_

Year Project Received Allocation  
 or Bond Issued: 19\_\_\_\_\_

Type (*check all that apply*):  
 New Construction  
 Rehab (with or without acquisition)  
 Existing (for 1987-89 allocations only)

Credit Percentage (*check one*):  
 9% (70% present value)  
 4% (30% present value)  
 Both

	Yes	No
Does project have a non-profit sponsor?	<input type="checkbox"/>	<input type="checkbox"/>
Increased basis due to qualified tract or difficult development area?	<input type="checkbox"/>	<input type="checkbox"/>
Did the project use tax-exempt bonds?	<input type="checkbox"/>	<input type="checkbox"/>
Did the project use Farmers Home Section 515 loans?	<input type="checkbox"/>	<input type="checkbox"/>

## INSTRUCTIONS FOR LIHTC DATA FORM

**State:** *Enter the Postal Service two-character abbreviation for your state.*

**State Identifying Number:** *Enter the number or code sequence that your agency uses to identify properties. This should be an identifier that will permit future identification of this project.*

**Project Name:** *Enter the name of the project, if one exists. Example: Westside Terrace Apartments. Do not enter a partnership name (e.g., Venture Limited II).*

**Project Address:** *Enter the complete street address of the property, including city, state, and (if available) zip code. Do not enter a P.O. box or multiple addresses (e.g., 52-58 Garden Street). If the project consists of more than one building with different street addresses, enter only one address, using the address for the building with the greatest number of units.*

**Owner's Contact Name, Address and Phone Number:** *Enter the name, address and phone number of the owner or owner's contact person. This will often be a representative of the general partner. This information will be used for future mail or telephone contacts regarding the development. As such, we need an individual and company name and address as opposed to the partnership name.*

**Total Number of Units in Project:** *Enter the total number of units in this project, summing across buildings if needed.*

**Number of Units by Size:** *Enter the number of units in the development (summing across buildings if necessary) that have 0, 1, 2, 3 or 4 or more bedrooms. Make sure the units sum to the total number of units in the project.*

**Number of Low Income Units:** *Enter the number of units in the development (summing across buildings if necessary) that were qualified to receive Low Income Housing Tax credits at the time the buildings were placed in service.*

**Year Placed in Service:** *Enter the last 2 digits of the year the project was placed in service. If this is a multiple building project, with more than one placed in service date, enter the most recent date. Placement in service date is available from IRS Form 8609, Item 5.*

**Year Project Received Allocation:** *Enter the last 2 digits of the initial allocation year for the project. Allocation date is available from IRS Form 8609, Item 1a. If the project received multiple allocations, use the earliest allocation year.*

**Type (New Construction or Acquisition/Rehab):** *Enter the production type for which the project is receiving tax credits, i.e., a newly constructed project and/or one involving rehabilitation. For projects allocated in 1987-1989 only, an additional type -- acquisition only -- is also possible. If the project involves both New Construction and Rehab, check both boxes. (Construction type can be inferred from IRS Form 8609, Item 6. If box a or b is checked, the building is new construction. If box c and d or e is checked, the building is acquisition/rehab. If box c only is checked, the building is acquisition-only.)*

**Credit Percentage:** *This item indicates the type of credit provided: 9% credit (70% present value) or 4% (30% present value). Maximum applicable credit percentage allowable is available from IRS Form 8609, Item 2. The entry on the 8609 is an exact percentage for the project and may include several decimal places (e.g., 8.89% or 4.2%). Please check the closest percentage -- either 9 or 4 percent. The box marked "Both" may be checked for where acquisition is covered at 4% and rehab at 9%.*

**Does project have a non-profit sponsor?** *Check yes if the project sponsor is a 501(c)(3) nonprofit entity. Use the same criteria for determining projects to be included in the 10 percent non-profit set aside.*

**Increased Basis Due to Location in a Qualified Census Tract or Difficult Development Area?** *Check yes if the project actually received increased basis due to its location in a qualified census tract or difficulty development area. Increased basis can be determined from IRS Form 8609, Item 3b. (Note: projects may be located in a qualified tract without receiving the increase.)*

**Does project use tax exempt bonds?** *Check yes if financing was provided through tax exempt bonds. Use of tax exempt bonds can be determined from IRS Form 8609, Item 4, which shows the percentage of the basis financed from this source.*

**Does project use Farmers Home Section 515 loans?** *Check yes if the project was financed with a Farmers Home Section 515 direct loan.*

## **Appendix C**

### **Description of the LIHTC Database**

## Description of the LIHTC Database

The LIHTC Database contains records for 18,344 projects and 838,043 units placed in service between 1987 and 1999. The original database contained records for 9,785 projects and 339,190 units placed in service between 1987 and 1994. In late 1996, efforts were made to improve the coverage of the LIHTC database for earlier years of the program. This resulted in the addition of 1,989 projects containing 67,056 units to the database. In 2000, 4,833 projects and 300,891 units placed in service from 1995 to 1998 were added. This most recent update to the database added data on 1,737 projects and 130,906 units placed in service from 1997 to 1999. Exhibit C1 shows the history of data updates by year placed in service.

### Project Data

Project data was collected from the state allocating agencies. Data were either provided in electronic form, provided on the LIHTC data collection form, or compiled by Abt Associates staff from listing or other documents provided by the states. In a few cases, data were collected directly from agency files by members of the study team.

### Geographic Indicators

Project street addresses were used to match properties with their 1990 census tract. Projects placed in service between 1987 and 1994 were initially geocoded using HUD's Conquest<sup>30</sup> geographical information system, as well as through the efforts of a private vendor. The geocoding rate for these projects was 79 percent.

Projects placed in service between 1995 and 1998 were first geocoded using MapMarker version 6.1 Plus. Street-level matching was used to obtain the 1990 census tract location of each address. Properties were first geocoded during an initial, automatic pass. Properties not geocoded during the automatic pass were run through the system again in interactive mode.

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<sup>30</sup> Conquest as a proprietary GIS package which could be used to identify geographic location based on street address and to attach Census or other demographic variables for the location.

**Exhibit C1: History of Data Updates to National LIHTC Database**

Year Placed in Service	Original Database	Revision to Original Database	First Update		Second Update				
			1995-1998 New Data	Final 1995-1998 Update	Effect of Edits	1997-1999 New Data	Effective Update	Final 1997-1999 Update	
missing	Projects Units	931 18,776	1,011 38,651		1,942 57,427	-1 -1		-1 -1	1,941 57,426
1987	Projects Units	502 12,403	200 4,683		702 17,086				702 17,086
1988	Projects Units	1,012 25,942	464 9,868		1,476 35,810				1,476 35,810
1989	Projects Units	1,198 34,589	191 8,168		1,389 42,757				1,389 42,757
1990	Projects Units	1,038 39,889	77 3,552		1,115 43,441				1,115 43,441
1991	Projects Units	1,097 39,428	46 2,134		1,143 41,562				1,143 41,562
1992	Projects Units	1,355 49,931			1,355 49,931				1,355 49,931
1993	Projects Units	1,355 59,942			1,355 59,942				1,355 59,942
1994	Projects Units	1,297 58,290			1,297 58,290				1,297 58,290
1995	Projects Units			1,370 78,940	1,370 78,940				1,370 78,940
1996	Projects Units			1,299 81,416	1,299 81,416	-1 -56		-1 -56	1,298 81,360
1997	Projects Units			1,270 79,548	1,270 79,548	-9 -1,115	53 6,098	44 4,983	1,314 84,531
1998	Projects Units			894 60,987	894 60,987	9 1,007	310 24,585	319 25,592	1,213 86,579
1999	Projects Units					2 220	1,374 100,168	1,376 100,388	1,376 100,388
All	Projects Units	9,785 339,190	1,989 67,056	4,833 300,891	16,607 707,137	0 55	1,737 130,851	1,737 130,906	18,344 838,043

During the interactive pass, we attempted to correct property addresses by correcting spelling errors and by using a variety of online databases to obtain corrected zip codes and property address information. Following the interactive geocoding pass, the overall geocoding rate for projects placed in service between 1995 and 1998 was 91 percent.

All projects were later re-geocoded using MapMarker version 7.0. For properties placed in service between 1987 and 1998 and included in the database update in 2000, the addresses were geocoded through an automatic pass. If a property was not automatically geocoded but was geocoded previously, the older geocoding information was kept in the database. Properties neither geocoded during the automatic pass nor geocoded previously were run through the system for interactive geocoding. Projects most recently added to the database, with placed in service year from 1997 to 1999, were geocoded through automatic and interactive passes using MapMarker version 7.0. Properties for which we could not determine a complete and accurate address were left ungeocoded. The overall geocoding rate for all properties in the database was 89 percent.

## **Location Data**

For all projects successfully geocoded, geographic indicators were used to develop information on project locations, for example, whether the property was located in an MSA or non-metro area (as of the 1990 Census), and, for projects in MSAs, whether the project was located in a central city of the MSA. HUD data files and listings were also used to identify projects located in areas that had been designated by HUD as Difficult Development Areas when projects were placed in service. The criteria for this designation are legislatively determined and are intended to capture areas with below average incomes and relatively high development costs. Using MapInfo Professional version 6.0 mapping software and electronic maps of the Census 2000 geographic entities, we also determined the 2000 census tract for each geocoded property.

A complete listing of all database variables is provided in Exhibit C2.

**Exhibit C2**  
**Low Income Housing Tax Credit Database, 1987-1999**  
**Data Dictionary**

Variable Name	Variable Definition	Variable Type*	Decimal Places	Value Labels
HUD_ID	Unique Project Identifier for the Database — characters 1-3: Allocating agency code (see table below) digits 4-7: Year placed in service (0000 if unknown or missing) digits 8-10: Record number within allocating agency and year placed in service	A		
PROJECT	Project name	A		
PROJ_ADD	Project street address	A		
PROJ_CTY	Project city	A		
PROJ_ST	Project state	A		
PROJ_ZIP	Project zip	A		
STATE_ID	State-defined Project ID	A		
CONTACT	Owner or owner's contact	A		
COMPANY	Name of contact company	A		
CO_ADD	Contact's business address	A		
CO_CTY	Contact's city	A		
CO_ST	Contact's state	A		
CO_ZIP	Contact's zip	A		
CO_TEL	Contact's telephone	A		
LATITUDE	Latitude: Degrees Decimal	N	6	
LONGITUD	Longitude: Negative Degrees Decimal -- GIS Mapping Convention	N	6	
REG	Census Region	N		1=Northeast 2=Midwest 3=South 4=West
MSA	MSA Number	N		
PLACE	Census Place Code	N		
FIPS1990	Unique 1990 Census Tract ID -- digits 1-2: State FIPS Code digits 3-5: County FIPS Code digits 6-11: Census Tract Number (no decimal point included)	A		
ST1990	1990 State FIPS Code	N		
CNTY1990	1990 County FIPS Code	N		
TRCT1990	1990 Census Tract Number	N	2	
FIPS2000	Unique 2000 Census Tract ID -- digits 1-2: State FIPS Code digits 3-5: County FIPS Code digits 6-11: Census Tract Number (no decimal point included)	A		
ST2000	2000 State FIPS Code	N		
CNTY2000	2000 County FIPS Code	N		
TRCT2000	2000 Census Tract Number	N	2	

**Exhibit C2 (Continued)**  
**Low Income Housing Tax Credit Database, 1987-1999**  
**Data Dictionary**

Variable Name	Variable Definition	Variable Type*	Decimal Places	Value Labels
N_UNITS	Total number of units	N		
LI_UNITS	Total number of low income units	N		
N_OBR	Number of efficiencies	N		
N_1BR	Number of 1 bedroom units	N		
N_2BR	Number of 2 bedroom units	N		
N_3BR	Number of 3 bedroom units	N		
N_4BR	Number of 4 bedroom units	N		
YR_PIS	Year placed in service	A		
YR_ALLOC	Allocation year	A		
NON_PROF	Was there a non-profit sponsor?	N		1=Yes 2=No
BASIS	Was there an increase in eligible basis?	N		1=Yes 2=No
BOND	Was a tax-exempt bond received?	N		1=Yes 2=No
FMHA_515	Were FmHA (RHS) Section 515 loans used?	N		1=Yes 2=No
TYPE	Type of construction	N		1=New construction 2=Acquisition and Rehab 3=Both new construction and A/R 4=Existing
CREDIT	Type of credit percentage	N		1=30 percent present value 2=70 percent present value 3=Both
N_UNITSR	Total number of units or if total units missing or inconsistent, total low income units	N		
LI_UNITR	Total number of low income units or if total low income units missing, total units	N		
METRO	Is the census tract metro or non-metro?	N		1=Metro/Non-Central City 2=Metro/Central City 3=Non-Metro
DDA	Is the census tract in a difficult development area?	N		0=Not in DDA 1=In Metro DDA 2=In Non-Metro DDA
QCT	Is the census tract a qualified census tract?	N		1=In a qualified tract 2=Not in a qualified tract

\* A=Alphanumeric, contains characters and numbers; N=Numeric, contains numbers including decimal points and negative signs.

**Allocating Agency Codes Used in HUD\_ID**

AKA Alaska Housing Finance Corporation  
ALA Alabama Housing Finance Authority  
ARA Arkansas Development Finance Authority  
AZA Arizona Department of Commerce, Office of Housing and Community Development  
CAA California Tax Credit Allocation Committee  
COA Colorado Housing and Finance Authority  
CTA Connecticut Housing Finance Authority  
DCA District of Columbia Housing Finance Agency  
DCB DC Department of Housing and Community Development  
DEA Delaware State Housing Authority  
FLA Florida Housing Finance Corporation  
GAA Georgia Department of Community Affairs  
HIA Housing and Community Development Corporation of Hawaii  
IAA Iowa Finance Authority  
IDA Idaho Housing and Finance Association  
ILA Illinois Housing Development Authority  
ILB City of Chicago Department of Housing  
INA Indiana Housing Finance Authority  
KSA Kansas Department of Commerce and Housing  
KYA Kentucky Housing Corporation  
LAA Louisiana Housing Finance Agency  
MAA Massachusetts Housing Finance Agency  
MAB Massachusetts Dept. of Housing and Community Development  
MDA Maryland Department of Housing and Community Development  
MEA Maine State Housing Authority  
MIA Michigan State Housing Development Authority  
MNA Minnesota Housing Finance Authority  
MOA Missouri Housing Development Commission  
MSA Mississippi Home Corporation  
MTA Montana Department of Commerce, Board of Housing  
NCA North Carolina Housing Finance Agency  
NDA North Dakota Housing Finance Agency  
NEA Nebraska Investment Finance Authority  
NHA New Hampshire Housing Finance Authority  
NJANew Jersey Housing and Mortgage Finance Agency  
NMA New Mexico Mortgage Finance Agency  
NVA Nevada Department of Business and Industry - Housing Division  
NYA NY State Division of Housing and Community Renewal  
NYB NY State Housing Finance Agency  
NYC City of New York, Dept. of Housing Preservation and Development  
OHA Ohio Housing Finance Agency  
OKA Oklahoma Housing Finance Agency  
ORA Oregon Housing and Community Services Department  
PAA Pennsylvania Housing Finance Agency  
PRA Puerto Rico Housing Finance Corporation  
RIA Rhode Island Housing and Mortgage Finance Corporation  
SCA South Carolina State Housing Finance and Development Authority  
SDA South Dakota Housing Development Authority  
TNA Tennessee Housing Development Agency

**Allocating Agency Codes Used in HUD\_ID**

TXA Texas Department of Housing and Community Affairs  
UTA Utah Housing Finance Agency  
VAA Virginia Housing Development Authority  
VIA Virgin Islands Housing Finance Authority  
VTA Vermont Housing Finance Agency  
WAA Washington State Housing Finance Commission  
WIA Wisconsin Housing and Economic Development Authority  
WVA West Virginia Housing Development Fund  
WYA Wyoming Community Development Authority